

Sportsman *Pilot*™



Fall  **1996**

Sportsman Pilot™

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ALL ARTICLES AND PICTURES
BY JACK COX UNLESS OTHERWISE CREDITED
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Has it really been ten years since Dick Rutan and Jeana Yeager became the first persons to fly around the world non-stop and non-refueled in an air breathing flying machine?

Significant events always seem to linger in our memory, while more mundane happenings just slide into the shadows of our minds. Many of the other things that happened in December of 1986 have long since vanished from memory, but I certainly recall the flight of the Voyager in vivid detail. It seems like yesterday that Golda and I bounded out of our Mojave, CA motel at 3:00 a.m. and headed our rental car in the direction of the North Gate of Edwards AFB, determined to be on hand for the triumphant return of Dick and Jeana from their historic journey. As we turned onto the reservation, we were astounded to see a line of car headlights streaming up from the south as far as the eye could see. All of Los Angeles seemed to have descended on the base!

MAG CHECK

Military officials later estimated that between 50,000 and 80,000 of us were on hand that Tuesday morning, December 23 to see history in the making.

We cheered deliriously when the Voyager popped out from behind a cloud, right over our heads, knowing as we did that Dick and Jeana were safely home. And we laughed uproariously when irrepressible Dick just couldn't resist making **six** flybys for the cameras before finally touching down on Edwards' legendary dry lake bed!

The following day, Christmas Eve, I conducted the first and only interview that was granted to anyone other than the co-author of Dick and Jeana's subsequent book, **Voyager**. My resulting article appeared in the February 1987 issue of **Sport Aviation** and was the first "inside" story of the flight to be

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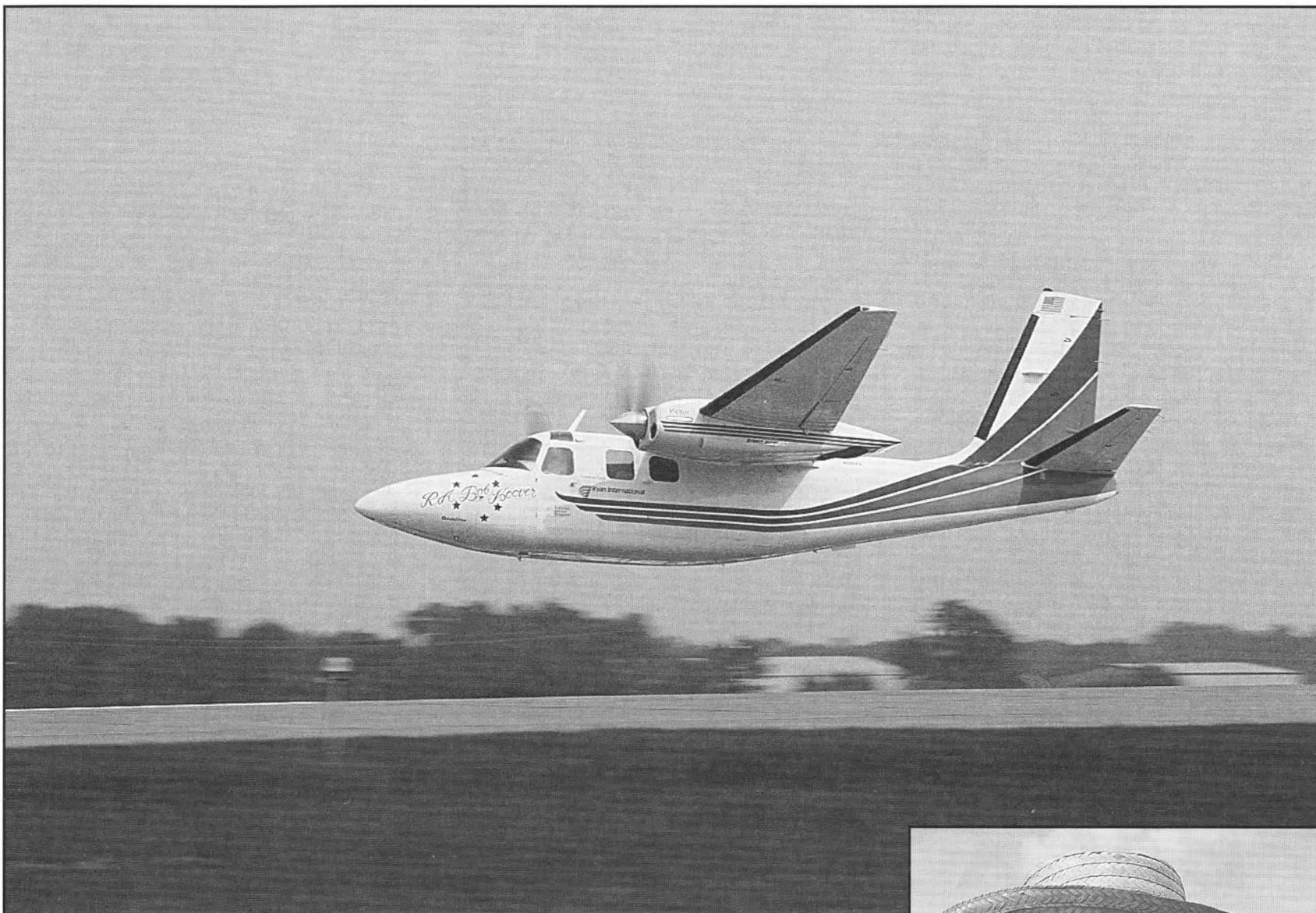
published. I'll always treasure that piece of work because I know such an opportunity will never come my way again. I was born too late to be involved with the exploits of Lindbergh, Earhart and Post, and the flight of the Voyager was the last great aviation "first" that will ever be accomplished in a propeller-driven aircraft.

I remain amazed that the flight of the Voyager ever took place at all. Although some crucial sponsorship turned up at the eleventh hour, the building and testing of the airplane was done on a shoestring consisting largely of small donations by EAA members and other pilots who wanted to see two of their own have a chance to make the history books.

Next month Golda and I will be at the National Air and Space Museum in Washington to take part in the 10th anniversary celebration of the world flight . . . but it still seems like just yesterday.



KALEIDOSCOPE



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BOOK REVIEW

Forever Flying by R. A. "Bob" Hoover, with Mark Shaw. Pocket Books, New York, 1996

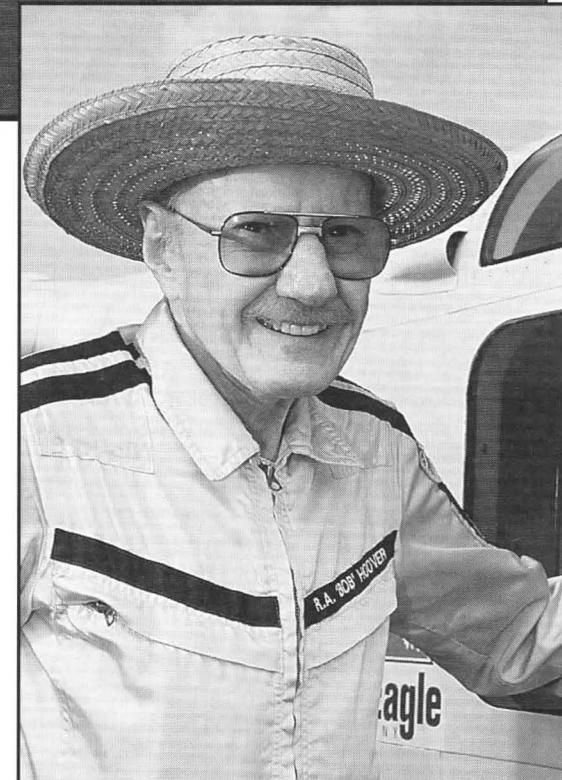
When Chuck Yeager says Bob Hoover is the greatest pilot he ever saw and Jimmy Doolittle calls him the greatest stick and rudder pilot who ever lived, there's not much left that's meaningful to say about Bob's ability. There is a lifetime of adventure to recount, however, and that's what **Forever Flying** is all about.

Born in Nashville, TN on January 24,

1922, Bob Hoover had his interest turned toward aviation by Lindbergh's solo flight to Paris in May of 1927. Only five, he was too young to fully comprehend the accomplishment at the time, but he would grow up imbued with the spirit of the age. Aviation was the cutting edge of technology in the Roaring Twenties, and pilots were held in much the same popular esteem our present day younger generation reserves for sports and rock superstars. Bob's heroes were Lindbergh, Roscoe Turner, Capt. Eddie Rickenbacker and Jimmy Doolittle. Especially Jimmy Doolittle. He spent his early teens building model airplanes and reading everything he could find on aviation. A book by Bernie Lay introduced him to aerobatics - specifically the aerodynamics involved in the various maneuvers - and probably more than any other early influence, it set him on the course he would follow for the rest of his life.

Roscoe Turner's psuedo-military uniform also greatly impressed young Bob Hoover, but not for its flamboyance. He grasped Turner's message that a fastidious appearance commanded respect, and would echo the concept in later years when he performed his airshow routines in custom tailored business suits.

By the time he reached his mid-teens, Bob knew where he wanted to go in life.



Bob Hoover and his Shrike Commander.
EAA Photos by Dan Luft (top) and Bob Miller (bottom)

"The only thing I ever wanted to do was fly airplanes."

He began his journey at 15 by sacking groceries to earn money for flying lessons, but encountered an unexpected problem:

airsickness! Like his future friend, Chuck Yeager, Bob became airsick every time he left the ground, but also like Yeager, he was determined to somehow overcome the malady. There was no magic cure - he simply kept going back for more instruction, including aerobatics, until, finally, he adapted to the three-dimensional motions of an airplane aloft and got over the need to carry a barf bag with him on every lesson. He soloed a Cub at 16 and immediately began practicing to achieve the perfection in his aerobatic maneuvers that Bernie Lay had emphasized in his book.

After graduation from high school in 1940, Bob joined the Tennessee Air National Guard and became a weekend warrior in training to become a tail gunner. At that time, a candidate for Air Corps pilot training had to be 21 and have at least two years of college, so Bob kept flying on his own nickel and hoped the war everyone knew was coming might change the regulations to allow him to realize his dream of following in the footsteps of Rickenbacker and all his other heroes. His Air Guard unit went on active duty in 1940 and was stationed at Columbia, SC, where Bob and an equally sky-crazed friend bought the wreckage of an E-2 Cub and rebuilt it in their off hours. They later barnstormed the airplane on weekends and on leave, getting around the fact that they did not have

Commercial licenses by selling little gold-plated wings, then giving their customers a "free" ride.

Just as Bob hoped, the coming of World War II allowed enlisted men to apply for Air Corps flight training, and he soon found himself in Helena, Arkansas learning to fly a Stearman. Already a proficient aerobatic pilot, Bob's unusual ability was immediately recognized by his instructor, Capt. Bart Renno, who skipped the primary phases of training and advanced him to aerobatic instruction. So quickly and amazingly did Bob progress that his commanding officer allowed him to perform a 30 minute aerobatic show during his Primary graduation ceremonies!

After Basic training at Greenville, MS in the BT-13, Bob was disappointed to be channelled into twin engine Advanced training in the Curtiss Jeep, Bamboo Bomber and Lockheed Hudson. He wanted to be a fighter pilot, but at six feet two, he had run afoul of regulations that routinely sent tall pilots to bombers and transports and the shorter ones to fighters. Bob managed to beat the system by locating a company clerk who was willing to switch his records with those of a short pilot who didn't want fighters for twenty bucks worth of Kentucky's finest bourbon . . . and was overjoyed to soon be doing aerobatics in P-39s and P-40s over Tampa Bay.

Bob was shipped to Great Britain on the *Queen Elizabeth* late in 1942, fully and eagerly anticipating that he would soon be battling Messerschmitts over Europe. He would be sorely disappointed, however, when he was later shipped to North Africa and assigned to a supply depot testing aircraft coming out of maintenance, as well as new ones that had just been assembled after arriving from the U. S. by cargo ship. It was a dream job in one respect because he got to fly almost every type of combat aircraft being used in the North African campaign, but Bob wasn't happy because he wanted to see action in fighters. Once again his exceptional flying ability had been recognized by his superior officers, but this time it worked against him. His skill was more important to the war effort where he was than as just another fighter pilot, he was repeatedly told, but Bob was never swayed. He never stopped requesting a transfer to a combat unit and never stopped looking for a string to pull to somehow get around the repeated denials.

He finally found one in the form of still another friendly office clerk, and to his elation was soon flying off to a fighter base on the island of Corsica . . . and the real war. Assigned to the Fourth Fighter Squadron of the Fifty-second Fighter Group, which flew British Spitfires, he found that his duties would consist largely of providing cover for ships supplying the Allied drive up through

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Italy, but there was always the hope that he would encounter German aircraft attempting to attack the fleet.

On February 9, 1944, just days after his 22nd birthday, Bob finally got his chance. While strafing German ships just off Nice, France, his four-plane flight was jumped by four Focke Wulf 190s, which quickly shot down one of the Spitfires. Bob was immediately put in a terrible spot when his external belly tank failed to jettison . . . and into an impossible situation when his two remaining mates turned tail and headed for home. Despite the drag of his belly tank, Bob managed to shoot one of the 190s down and damage another, but the two others penned him into a turning battle and began making alternate gunnery passes on him as he desperately fought for his life.

There are some pilots who have a unique ability that is much like that of a pro quarterback who can lead a receiver and drop the ball right in his hands, despite the fact that he is running at full tilt and is twisting and turning in an effort to elude defensive backs. These pilots can somehow lead their targets and hit them from distances and angles that seem impossible to their less gifted squadron mates, and it was Bob's unfortunate fate to meet one of these sharp shooters during his very first aerial combat. Bob saw the Focke Wulf diving in on him, but chose to wait until he was closer before using his Spitfire's superior turning ability to evade his gunfire. He had no way

of knowing that the 190 was piloted by one Siegfried Lemke, who would go on to score more than 70 kills, command a Luftwaffe fighter wing and be awarded the Knight's Cross. All he knew was that no one could hit him at such an angle and at such a distance . . . at least until the shells began hammering into his engine from seemingly nowhere. Wounded by metal fragments and with his Merlin on fire, Bob jettisoned his canopy and bailed out. Moments later he dropped into the cold Mediterranean Sea and was picked up a few hours later by a German patrol boat.

For the next 16 months Bob would be a prisoner of war. He would be interrogated (unsuccessfully) by the Germans, tortured, and finally thrown into the infamous Stalag I on the northern coast of Germany. A terrible prisoner, at least from the German point of view, Bob was constantly involved in escape attempts and served more than his share of time in solitary confinement as a result.

By sheer chance, one of Bob's fellow POWs in the last months of the war was Gus Lundquist. Gus had been a test pilot at Wright Field and had flown almost all the German aircraft the Allies had captured intact during the war. He had talked himself into a combat mission while on a visit to England to evaluate some more captured German aircraft - and wound up in Stalag I. With a shared passion for flying, he and Bob spent many hours discussing the sys-

tems, flight characteristics and performances of the enemy aircraft he had flown, with, of course, a special emphasis on the Fw. 190, the airplane that had put Bob in a concentration camp. It was information that would soon come in handy.

In the last days of the war in Europe, with the Russians about to overrun the area where Stalag I was located, Bob and two other prisoners finally made their break. After several harrowing encounters with the Russians, who were wreaking a terrible revenge on the German populace for atrocities their army had committed during their earlier, unsuccessful invasion of Russia, Bob came across a virtually abandoned German fighter base and managed to locate a serviceable Fw. 190. After forcing a mechanic to help start the engine, Bob took off and flew the airplane to Holland - aided by the knowledge he had acquired from Gus Lundquist - and bellied it into a farm field. Free at last!

After the war Bob was assigned to Wright Field at Dayton, Ohio to serve as a test pilot. Chuck Yeager had a similar assignment and he and Bob became fast friends, literally and figuratively. Both loved to dogfight and they took each other on every time they met in the air, regardless of what type of aircraft they were flying. Typically, according to both Bob and Chuck, they would lock horns at altitude and go at it hammer and tong until they were so low that each of them realized they had to

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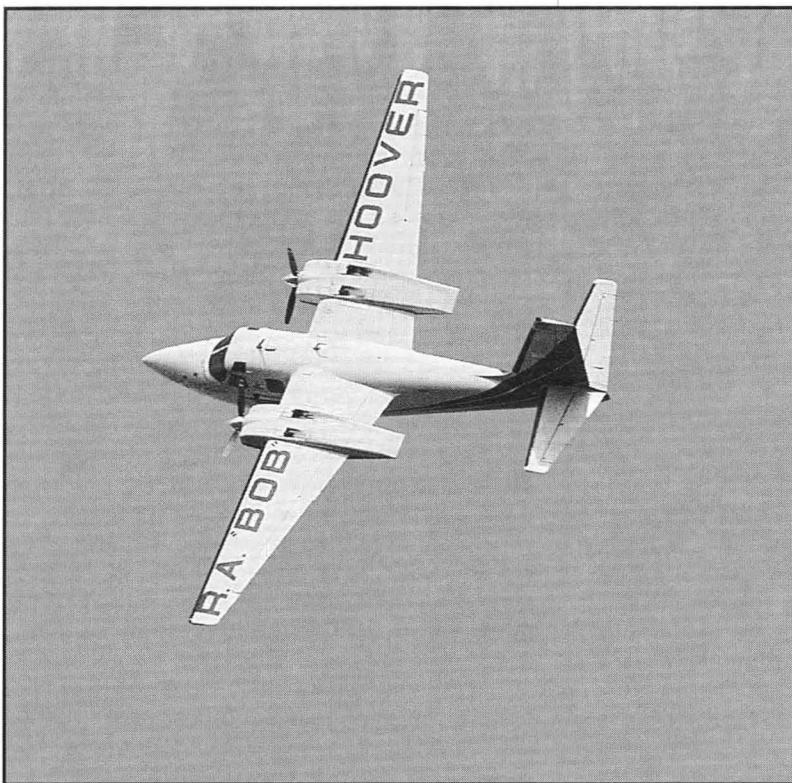
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EAA Photo by Lee Ann Abrams

knock it off before they killed themselves. Neither was able to wax the other's tail no matter how hard they tried, so they felt their dogfights always ended in a draw. To this day, each considers the other to be the best dogfighter he's ever encountered.

During their tours at Wright Field, the X-1 project was initiated and Yeager was ultimately selected to be the pilot who would attempt to break the sound barrier. Bob was selected as his back-up. When Chuck finally exceeded Mach 1 on October 14, 1947, Bob was taking pictures of the diamond-shaped shock waves in the X-1's exhaust from his chase plane.

In January of 1949, Bob left the military and went to work for Allison as a test pilot. The job lasted about a year and a half, at which time he had the opportunity to go to work for North American as an experimental engineering test pilot. At the time, North American was considered to be at the cutting edge of aviation technology, so Bob knew he would be flying the most advanced aircraft in the world. It was the kind of challenge he had dreamed about all his life, so it was an easy decision to pack up and head west with his wife, Colleen.

Over the next 36 years, Bob Hoover would become one of the best known pilots in the world. Initially, he would do engineering test flying on such North American designs as the XFJ-2, the F-86, AJ-1, B-45 and the F-100. It was dangerous work and, predictably, Bob had a number of very close calls. None was more dramatic than a flight in November of 1950 in an F-86 that was being used as a test bed for a new fly-by-wire control system. On take-off from Los Angeles International Airport, the system failed just after lift-off, pitching the airplane straight up. The airplane stalled and spun at low altitude and it is likely that any other pilot would have been killed a few seconds later when the fighter slammed into the ground. With his aerobatic experience

and a working rudder, Bob was able to stop the spin - and had the good fortune to have the now free-floating horizontal tail flip up just in time to allow the airplane to miss the ground and start to climb once again. Bob went through several such cycles before finally getting out over the Pacific and figuring out a combination of throttle setting, gear and flap position that allowed him a modicum of control over the bucking bronco. All the while, North American personnel on the ground had been urging him to bail out, but Bob felt it was his duty as a test pilot to save the airplane if at all possible. Otherwise, he or some other test pilot would simply have to duplicate the flight to try to find out what was happening and come up with an engineering solution. Amazingly, Bob ended up flying the F-86 over the mountains to what would become Edwards AFB and landed it - at 240 knots!

On another occasion Bob had to punch out of a F-100 that would not recover from a flat spin . . . and on still another he experienced a compressor stall in an F-100 and broke his back when he tried to prove that the Century Fighter could be dead stuck. Over the years he would break both legs and suffer various facial injuries in crashes, but Bob's love of flying has never diminished.

During the Korean War North American began sending Bob around to air bases to demonstrate the F-86 (and later the F-100) to service pilots. In the early days before jet trainers were developed and put into service, pilots transitioning to aircraft like the Sabre and Super Sabre tended to land them too fast and had a fear that swept wings would kill them if they attempted to maneuver at low airspeed. Bob would be sent in to prove otherwise, and the accident rate always diminished dramatically after his demonstrations.

In the early '50s Bob was sent to Korea to demonstrate a dive bombing technique he had developed and actually flew a number of combat missions as a civilian. Had he been downed in enemy territory and captured, he could have been executed as a "spy." Bob's only regret, however, was that he did not have the opportunity to engage any MiGs in aerial combat.

In 1955 Bob was appointed director of customer relations for North American and shortly afterwards the executive assistant to retired General Austin Davis, the head of the North American Aircraft Division. It was at this point that the company bought a Cavalier Mustang for Bob to fly to bases where he was giving flight demonstrations for the military, and that, of course, was the beginning of his legendary air show performances in the P-51. Later, when

North American merged with the Rockwell Corporation and became North American Rockwell, he began flying shows in the Aero Commander business twin. The airplane had not had a good start in the marketplace, but after Bob began showing corporate pilots what it could do, production quickly rose from one to eight a month.

Bob's airshow career, which really began while he was at Wright Field in the late 1940s, is one of the longest such runs in aviation history and has been filled with all sorts of adventures. He crashed his Mustang after its engine quit at Myrtle Beach, SC, had it catch fire at Marysville, OH in 1984, etc., etc. It's all in **Forever Flying** and you will enjoy reading every word of it because most of you have seen Bob perform over the past few decades and may well have been at the very shows where some of his adventures took place. Bob left Rockwell in 1986 and was sponsored for a time by Del Smith's Evergreen International, but today he flies for his own air show company.

The final chapter of **Forever Flying** never should have been necessary. It details his recent run-in with the FAA, which, fortunately, has had a happy ending that has seen Bob return to the air show circuit this past season.

It has been my pleasure to have interviewed Bob a couple of times over the years for articles in **Sport Aviation**. In the early '80s I wrote a two-part series that covered his early years and his engineering test pilot experiences. That interview took place in his North American Rockwell office overlooking the Los Angeles International Airport and I had the singular opportunity to stand with Bob at the window while he pointed out the buildings he barely missed while on his wild ride in the out-of-control F-86. It was certainly one of the most memorable moments of my journalistic career. A couple of years ago, in the midst of Bob's battle with the FAA, I had the opportunity to interview him again, this time at Oshkosh. The subject was his experiences as a prisoner of war, and my article was frankly pitched to detail the kind of sacrifices Bob had made for the government that was then persecuting him in such a blatantly sorry fashion. On both occasions Bob was an interviewer's dream - totally cooperative, very organized in his descriptions of past events and having an amazing recollection of even the minutest of detail. No one will ever convince me that Bob suffers from a "cognitive defect." Our most recent interview, two years ago, was a marathon session that would have taxed the endurance and memory of anyone, but Bob was still going strong when we had to call it quits and get him along to another appointment.

Because my interviews were for magazine articles and thus focused on specific episodes of Bob's life, I never got to hear the full story. **Forever Flying** . . . which is what Bob hopes to do for the rest of his life . . . filled in the gaps for me and was a very enjoyable vicarious experience. Introduced just prior to Oshkosh '96, the book is available at most of the big-name book stores and I highly recommend it to all of you. I've just hit the high spots in this re-

view - now, in the word's of Bob's long-time friend, Paul Harvey, you can enjoy "the rest of the story."

JON SHARP ROLLS ON

The Jon Sharp juggernaut rolls on. At Oshkosh on August 2, he and his invincible **Nemesis** set a new world's C-1.A three kilometer speed record, with a four-way average of 283.75 mph. This broke the old record of 277.26 mph Jon and **Nemesis** set at Oshkosh in 1993.

Immediately following the EAA Convention, Jon and his crew hauled **Nemesis** to Seattle where it was put on display from August 8 through the 14th at the Museum of Flight on Boeing Field, then it was on to Vancouver, BC for the inaugural Formula One races there at the Boundary Bay Airport. Predictably, Jon was top qualifier at 258.288 mph, and he proceeded to easily win his two heats at average speeds of 251.363 mph and 243.865 mph. The slower speed was due to an inverted start. In the Gold championship race Jon sped to victory at an average speed of 247.432 mph.

Dan Gilbert of Belleville, MI was second at 231.641 mph in a brand new Formula One racer, the **Shadow**. Several years ago, he bought the molds for the **Nemesis** fuselage from Jon Sharp, and proceeded to pull shells from them to use on a new racer. **Nemesis** was originally set to have a steel tube fuselage with a carbon fiber shell over it, but during its construction a change was made to an all-carbon structure. Dan Gilbert built the **Shadow** much like the original concept for **Nemesis**. It does not have the same Dan Bond-designed natural laminar flow airfoil, however. It uses a very thin high aspect ratio wing that looks a great deal like the one Jon Sharp had on his first racer, **Aero Magic**. Dan also changed the shape of the vertical tail, using a planform very much like that of the XP-51 in the EAA Museum. Dan Gilbert is a recently retired Northwest pilot and finishing even a distant second to Jon Sharp in his first Formula One Gold championship race was quite an impressive feat.

Ray Cote was just an eyeblink behind Gilbert at 231.240 mph in his **Alley Cat**, and Kevin Kelley was fourth at 230.081 mph in his original design, **Barbara Jean**. Bruce Bohannon, Dave Hoover, Scott Kuenzi and Ray Sherwood were the remaining participants in the Gold championship race and finished in that order.

Dave Morss recently purchased the taperwing Cassutt **Sahara** and flew it to victory in the Silver championship race at an average speed of 220.944 mph. Jim Miller, who was having a vibration problem of some sort, was second in his **Pushy Cat** at 214.685 mph, and was followed, in order, by Steve Meyers, Ray Sherwood, Steve Kuenzi, Scott Kuenzi, Bobby Budde and George Budde.

From all reports, the Vancouver race was an extremely successful event - expertly managed and absolutely first class in every respect. They even had a Formula One auto racing style victory celebration, with podiums for the first three finishers and bottles of champagne to spray on each other and the crowd! The racers definitely want



Dan Gilbert's new Formula One . . . and semi-Nemesis clone . . . the Shadow. Dan finished second to Jon Sharp at Vancouver in his first race in the airplane.

to go back next year . . . and the dates for the 1997 Vancouver International Air Races are August 16 and 17th.

BOHANNON SETS NEW TIME-TO-CLIMB RECORD

Bruce Bohannon also set a new C-1.a world's record at Oshkosh '96. With a nitrous oxide system installed in his Formula One racer, **Pushy Galore**, he set a new 3,000 meter time-to-climb record of three minutes and eight seconds, beating the old record by 21 seconds. Bruce already held the 6,000 and 9,000 meter time-to-climb world records in FAI Class C-1.a..

THANKS TO KEN MOUNTAIN

When Golda and I went to work for EAA in 1970, Ken Mountain of the Cleveland area was the editor of one of the best EAA chapter newsletters in the country. He later retired from his printing business, said goodbye to the cold and snow and moved to sunny Escondido, CA. Having lived in Cleveland, it is not surprising that he has an interest in air racing, or that he takes in all the West Coast racing events each year.

For several years Ken has been a big help to Golda and me as we attempt to adequately cover the Reno races. As the only publication that tries to provide full narrative coverage of all four racing classes, we are on the run constantly from one pit area to the next taking pictures and gathering information. Unfortunately, that means we sometimes arrive at the press building too late to pick up a particular pairing or race result sheet. Ken recognized our dilemma several years ago and graciously volunteered to collect a full set for us. Just days after we return home, we always get a package from him with all the results neatly organized - which is a tremendous help in writing the Reno article for our Fall issues.

He also attends the smaller events and provides us with information on them - for instance, the Kingman, AZ Formula One demo race that we will cover in our next issue. Our sincere thanks to Ken on behalf of

ourselves and all our readers for his thoughtfulness and valuable assistance.

SHOCK WAVE TO BE COMPLETED

Shock Wave, the P&W R-4360 Unlimited air racer Daryl Greenamyer has had under construction for several years at the Ramona, CA airport has been moved to the Anoka County Airport north of Minneapolis for completion. Greenamyer and Wally Fisk have entered into a partnership, with the goal of completing and racing the airplane. Fisk's shop is said to be going all out to have it ready to compete at Reno next year.

Wally Fisk is the owner of AmJet Aircraft and has a growing collection of warbird and other rare aircraft. He apparently got the racing bug at Reno this year after having Dennis Sanders race his T Mk 20 Sea Fury. You'll read more about that in the Reno '96 article that follows.



Shock Wave was designed for Daryl Greenamyer by the late Bruce Boland and most of the airframe work accomplished to date was done by the late Ray Poe. (Bruce, Ray and Pete Law began their air race careers as consultants to Greenamyer on his all-conquering Bearcat back in the 1960s, and now only Pete survives.) As we described it on these pages last year, **Shock Wave** has a one-piece wing that consists of the outer panels of a Sea Fury wing with an original center section Bruce designed to bridge the gap between them. The fuselage is an original design, but the empennage is from an F-86. It's the smallest airframe that can be bolted to the backside of an R-4360 and should be devastatingly fast.

Reno '97 may be the best one yet!



RENO '96

*New Pilots, New Race Planes, Good Weather, Bad Weather
And A Surprise Winner In The Unlimited Gold*

Weatherwise, Reno was back to its old unpredictable self this year. For the past three years we've enjoyed excellent weather throughout the four race days, but we've always kept our fingers crossed. In years past we've seen everything at the Reno-Stead race site: hot weather, cold weather, rain, snowflakes, high winds, low ceilings - and, of course, picture perfect days for air racing. This year we had a little of everything. Wednesday and Thursday were beautiful days; Friday, with a cold front sweeping through, was miserable, with wind, rain and ceilings too low for the Unlimiteds to fly; Saturday was another beautiful day; and Sunday was cool but rather nice until mid-day when the wind began to sweep down off the Sierras. When we left the following Tuesday morning, the mountain peaks to the west were covered with snow! If you've never been to the races at Reno but plan to attend sometime in the future, a word to the wise: take a warm coat, because you're likely to need it on at least one of the days you're there.

The weather on Friday had a significant effect on the races. Ten heats were scheduled, but six of them ended up being

cancelled. The first race of the morning (9:00 a.m.), the Biplane Heat 1B, was run, but the rest of the scheduled Biplane and Formula One heats were cancelled because of high winds and rain. The two scheduled T-6 heats and the T-28 heat were run during the middle part of the day, but all the afternoon Unlimited heats were scrubbed because the ceiling was too low for them. They need at least 2,500' AGL in case someone has a Mayday and has to pull up and off the race course. Unfortunately, that meant that we did not get to see the very fastest Unlimiteds, **Rare Bear**, **Dago Red** and **Strega**, race for the first time, and that heat would not be made up. The top guns normally run on Friday, Saturday and Sunday, and a lot of the race strategy centers around how much engine the teams are willing to use up in the two preliminary heats. We had to be content with just two Unlimited Gold races this year, as well as one less heat in the lower speed groupings as well. Too bad, but it doesn't pay to mess with Mother Nature.

There were a number of new racers and race pilots this year, but there were also some notable no-shows. The new R-4360

powered racer being built by Daryl Greenamyer (more about it later), the new R-3350 racer being built by Dave Cornell and Matt Jackson and the new Griffon powered, built from scratch Mustang with a Learjet wing by Bill Rogers and Gary Levitz were not completed in time to make this year's races. Don Whittington was not back this year with his Griffon powered Mustang, and Alan Preston did not get the R-2800 powered Yak 11, **Peristroika**, he recently purchased from Bob Yancey to Reno '96. Neither was the mighty **Dreadnought** on the line. Its super reliable R-4360 finally gave up the ghost last year after an amazing decade of hard use in the big Sea Fury and there simply had not been any time to get it rebuilt for Reno '96. The Sanders family has spent the past year moving their business from the airport at Chino, CA to a new hangar/shop they have built on a private airport near Lone in central California. Brian and Dennis Sanders were at Reno to race, however, in their R-3350 powered #19 Sea Fury and Wally Fisk's T Mk. 20 Sea Fury.

Perhaps the biggest pre-race news on the plus side of the ledger was the fact that

Left. To the victor the spoils - in this case a ride down the showline in this neat old Buick convertible from the National Automobile Museum in Reno. That's Jon Sharp acknowledging the cheers of the crowd after one of his heat race wins. On Sunday he would win his sixth straight Reno Formula One championship . . . and get a victory ride on an ancient firetruck.

David Price had purchased a new Rolls-Royce Merlin race engine from Dwight Thorn for his clipwing Mustang, **Dago Red**. Thorn has been building engines for Tiger Destefani's **Strega** for 'lo these many years, so it was apparently a matter of if you can't beat 'em, join 'em. The line is getting longer by the day at Dwight's Gilroy, CA shop. Bob Hannah also races behind a Thorn Merlin in Bob Button's Mustang, **Voodoo Chile**.

Totally new this year was a racing class for T-28s. The big trainers had put on a "demonstration race" at Phoenix last March, but this would be their first time at Reno.

The T-6, Formula One and Biplane classes are fairly stable from year to year, so other than Dan Gilbert's Formula One, **Shadow**, the race planes and all but a few new pilots were expected to be familiar sights on opening day.

QUALIFYING

The barometric pressure was quite high during the first two days of qualifying at

slower than Penney! Needless to say, Price's pit was celebrating after his run, but even though they had the pole, neither John Penney nor **Rare Bear** owner, Lyle Shelton, was smiling very much. A new engine had been built up for the Bearcat since last year, but there simply had not been enough time to get it completely sorted out, according to Lyle. For some reason it was down on power, even during Penney's record run, but no one was certain why.

Bill "Tiger" Destefani was third in Unlimited qualifying at 465.516 mph, obviously having run **Strega**'s Merlin at some conservative, pre-determined manifold pressure and rpm. Bob Hannah was fourth at 444.065 mph in **Voodoo Chile**, and Howard Pardue was fifth at 406.794 mph in his R-3350 powered Hawker Fury. No one else topped 400 mph in qualifying, though Tom Dwelle just missed in his 3350 Sea Fury, **Critical Mass**, at 397.735 mph. Bill Rheinschilf ran a lap at 395.866 mph in his Mustang, **Risky Business**, and Brian Sanders ran 394.914 mph in still another R-3350 powered Sea Fury. Howard Pardue qualified his second racer, a stock Bearcat, at 374.226 mph, and Lloyd Hamilton closed out the top ten qualifiers in his Sea Fury, **Baby Gorilla**, at 374.056 mph.

The slowest Unlimited qualifying speed was turned in by John Parker in his Glasair III, but he still had reason to smile a bit. He was also the slowest qualifier last year, with a one lap speed of 276.699 mph. This year he improved that to 294.663 mph - a very

credible increase of 17.964 mph. He was still running a normally aspirated Lycoming IO-540, but had installed a nitrous oxide system that provided the additional speed. John didn't make the cut again this year and did not get to race, but says he will be back next year and will be faster. He won't have far to travel - he has moved his business to Reno and has a hangar just off the ramp where the Unlimiteds are parked during the races.

In addition to **Dago Red**, David Price brought the Museum of Flying's newly restored Grumman F8F-1 Bearcat and qualified it at 360.474 mph. He raced it once, but parked it for the duration of the weekend. He also brought his "designated Bronze winner", **Cottonmouth**, but the Mustang was not qualified or raced.

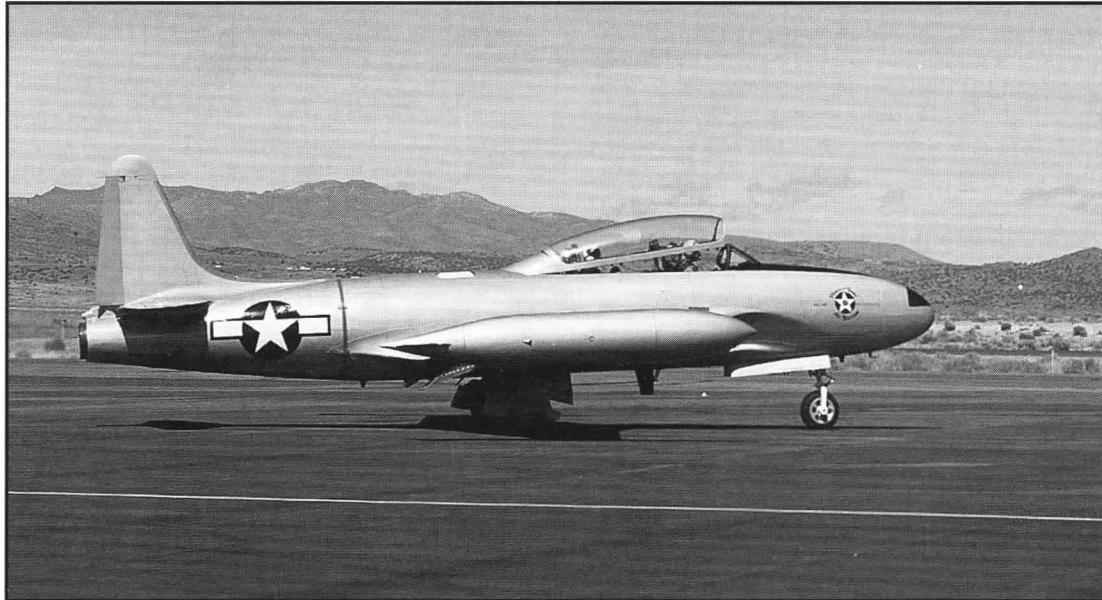
T-6

Charles Hutchins was not back to defend his 1995 T-6 championship this year, but his racer, **Mystical Power**, was - flown by John Krawczyk of Redding, CA. Hutchins was top qualifier in the airplane last year at 230.160 mph, but this year it was Sherman Smoot's turn to take the pole. He qualified **Bad Company** at 229.895 mph and Krawczyk was second at 228.114 mph. Al Goss was third in **Warlock** at 222.327 mph. In the T-6 category, the field is divided up into three groupings, with the three top qualifiers on the pole - and they battle it out through the preliminaries from there.

Fourth through the tenth qualifiers were Gene McNeely in **Four Play** at 222.052 mph; James Good in **Wyoming Wildcatter** at 219.127 mph; Jim Gist in **Big Red** at 218.780 mph; Fred Johnson in **Miss Appropriation of Funds** at 217.614 mph; Jim Bennett in **Tinker Toy** at 217.114 mph; Lee Oman in **Six Shooter**, at 216.930 mph; and Robert Jones in **Crossings Aviation** at 216.773 mph.

Jerry McDonald, who won the T-6 Silver championship last year in his **Big Red**, gave up his seat this year to Jim Gist of Granite Shoals, TX. Other newcomers included Lee Oman of Seattle, who has been Jim Franklin's wingwalker in past years at Reno, and Mary Dilda of Memphis, who

Steve Hinton and Bob Hoover flew top cover for the Unlimited racers this year in Steve's T-33 (left), and Rick VanDam used his smoke-equipped MiG-15 (below) as the pace plane to start each race.

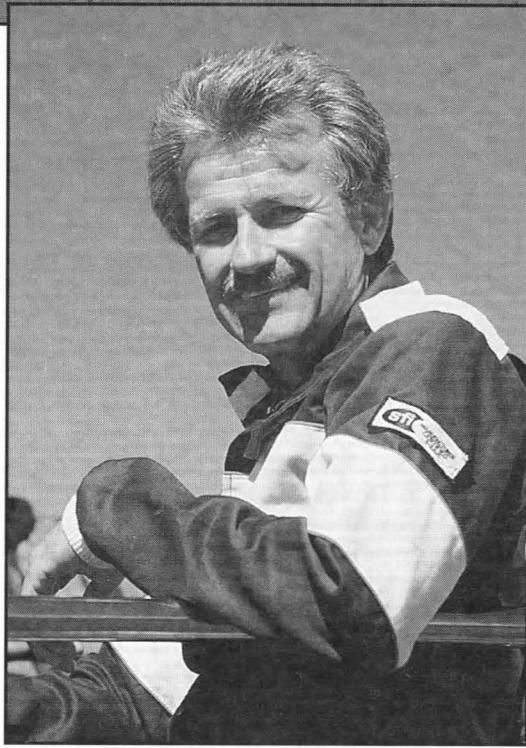


Reno '96 and may have contributed to some mind-boggling speeds . . . that and a lot of hard work by the various crews.

Unlimited

John Penney set a new Unlimited qualifying record last year in the **Rare Bear**, blasting around the 9.125 mile Reno race course at a speed of 489.802 mph. This year he must have really had the nitrous blowin' through the racer's big Wright engine, because he shattered the record books once again - this time at a one lap record of 491.266 mph! The real shocker, however, was the speed turned in by David Price in **Dago Red**. Last year he qualified second at 458.182 mph, but this year with his new Dwight Thorn Merlin he fired off a lap of 490.826 mph - an incredible 32.644 mph increase in speed, and just .440 mph





Steve Deckard of Benicia, CA and his Pitts, Magnum, winners of the Biplane Bronze championship race. Photos by Golda Cox

was racing a bright blue T-6 named **Two of Hearts**.

T-28

The field for the new T-28 class was apparently pieced together at the last minute. Just five racers entered and only two qualified. Bruce Wallace took the pole at 293.493 mph in **The Bear**, and Rick Raesz was second at 280.845 mph in his unnamed No. 28. Neil Anderson, Dan Lawson and Chris Miller were entered, but did not qualify. Once the races began, John Herlihy of Carson City, NV was the pilot of the T-28 that was listed on the qualifying sheet with Chris Miller as the pilot.

Formula One

Momentum . . . the Big Mo, as they call it in other sports . . . was another weapon in Jon Sharp's Reno arsenal this year. As noted in Kaleidoscope, he had already set a new world's speed record at Oshkosh and had cleaned up at the Vancouver races be-

fore arriving at the Reno-Stead Airport. When he took **Nemesis** out on the Formula One course to qualify, all that recent success seemed to just push him that much faster . . . to a new Reno qualifying record of 258.270 mph. Surprisingly, Jim Miller was relatively close - closer than anyone has been for some time - at 254.628 mph in his **Pushy Cat**, but there was a lot of doubt in the pits about the timing on his run. Bruce Bohannon was on the course at the same time in his very similar **Pushy Galore**, and later wondered if the timers had started the clock on Jim and stopped it on him as he came by the start finish line just a little ahead of Jim. Whatever the case, the time stood, and, certainly, Jim wasn't going to contest his own speed. He was having a vibration problem of some sort, so he had more important things to occupy his time and effort.

Tom Hauptman was the third fastest qualifier in his Shoestring, **Judy**, at 247.535 mph. Tom bought the four-time Reno winner in 1993 and raced it that year, but had been absent for the past couple of seasons. It was good to see him and ol' No. 44 back again.

Randy Howell of Discovery Bay, CA had purchased the No. 96 Grove GR-7 Kathy Gray raced as **Geronimo** last year, renamed it **Madder Maxx** and qualified fourth at 244.828 mph. Bonny Warner was racing a Pitts in the Biplane category named **Madd Maxx**, so **Madder Maxx** was the next step up on the superlative ladder . . . I suppose.

Dave Morss, who has raced a little bit of everything at Reno in years past, bought the taperwing Cassutt, **Sahara**, during the off-season and qualified fifth at 243.603 mph - just a whisker ahead of Ray Cote and **Alley Cat** at 243.497 mph. Dan Gilbert was seventh in his new **Shadow** at 240.258 mph. The two nearly identical Kelly F1Ds came next - Steve Myers in **Smiddy's Firefly** at 238.670 mph, and designer Kevin Kelly in **Barbara Jean 2** at 233.104 mph. Gary Hubler completed the top ten list at 229.850 mph in his taperwing Cassutt, **Mariah**.

Notable by his absence in the first ten was Bruce Bohannon and **Pushy Galore**.

Bruce was battling various ills in his Miller Special and would be playing catch-up all week.

Biplane

Patti Johnson easily topped the Biplane qualifying with a lap of 216.431 mph. That was just short of the new record of 217.229 mph she set last year in her modified Mong, **Full Tilt Boogie**, but it didn't matter a lot. She was still 10.849 mph faster than the second fastest qualifier, Earl Allen, who averaged 205.582 mph in the modified Pitts, **Class Action**. Patti was also sporting a new name this year - she had recently married Dave Heyburn, who is a member of her race crew. Congratulations, you two!

Jim Smith, Jr. qualified third at 204.344 in his modified Mong, **Glass Slipper**, followed by Steve Brown in his Pitts, **Miss Reno Air**, at 201.621 mph; Norman Way in his Pitts, **Magic**, at 197.704 mph; Charlie Greer in his Pitts, **Slo Poke**, at 185.949 mph; Mike Stubbs in his Pitts, **PattyAnne**, at 184.236 mph; Frank Jerant in his Pitts, **Reno Rabbit**, at 183.001 mph; Robert Jones in his Pitts, **One Arm Bandit**, at 182.911 mph; and finishing out the top ten qualifiers, Guy Paquin in his Mong, **Buzz Job**, at 182.316 mph.

The races began early the next morning (9:00 a.m.) and the beautiful weather was supposed to hold throughout the day. Beyond that, however, things didn't look so promising, according to the Weather Channel.

THURSDAY

Biplane

HEAT 1C - 5 LAPS

95 Les Homan, Pleasanton, CA, Super Starduster, Dawn, 168.300 mph

111 Bob Blackwood, Sonoma, CA, Pitts, After Sex, 166.607 mph

55 Ray Krasovich, Arvada, CO, Pitts, Ole Yeller, 166.384 mph

62 Mike Harris, Sonoma, CA, Pitts, Sonoma Red, 166.216 mph

25 Clifford Magee, Pitts, Low Rent High Roller, 150.488 mph

4 Earl Allen, Auburn, CA, Pilgrim Prog. Spl., Earl-E-Bird, 113.228 mph

3 David Rose, La Jolla, CA, King Kong Mong, Thunder Bug, Did not finish one lap

Action Highlights. Les Homan led all the way in his stunning green and yellow Super Starduster - with Blackwood, Krasovich and Harris fighting it out for second. Earl Allen, who does his serious racing in the highly modified Pitts, **Class Action**, was apparently just out for a lark in his **Earl-E-Bird**. He wore a white scarf that extended all the way back to the rudder in flight and did a lot of waving to the crowd . . . and competitors who lapped him. His racer was a really neat sportplane, however. It appeared to have some Smith Miniplane in its ancestry, but had a fake radial engine cowling hiding its Lycoming engine and a much larger vertical tail. The workmanship was very nice, also.

Formula One

HEAT 1C - 6 LAPS

40 Patti Johnson, Edgewater, FL, Cassutt, Miss USA, 207.257 mph
19 Scott Kuenzi, Madison, WI, Cassutt, Okie Streaker, 203.780 mph
10 Bobby Budde, Clearlake, MN, Cathaway R-5, El Bandito, 203.231 mph
27 Raymond Sherwood, Pleasant Hill, CA, Cassutt, Silver BB, 201.977 mph
17 Carl Swenson, Jr., Montgomery, TX, Cassutt, Annie, 201.809 mph
6 George Budde, Midwest City, OK, Cassutt, Okie Stroker, 198.851 mph
29 William R. Nusz, Rosamond, CA, Cassutt, Baby Dragon, 188.363 mph

Action Highlights. This heat was all Patti Johnson . . . no contest. Behind her were a couple of two-plane contests. Scott Kuenzi and Bobby Budde dueled to the finish line, and just behind them Ray Sherwood and Carl Swenson were also at it hammer and tongs. Fun to watch.

HEAT 1B - 6 LAPS

42 Kevin Kelly, Columbia, CA, Kelly F1D, Barbara Jean 2, 228.980 mph
92 Eric Matheson, Hong Kong, Cassutt, Yellow Peril, 225.529 mph
11 David Hoover, Foster City, CA, Cassutt, Frenzy, 224.002 mph
95 Gary Hubler, Caldwell, ID, Cassutt, Mariah, 221.549 mph
2 Bobby Budde, Clearlake, MN, Wagner, Okie, 206.645 mph
89 Bruce Bohannon, Friendswood, TX, Miller Special, Pushy Galore, 206.403 mph
43 John Housley, Ballwin, MO, Cassutt, Aero Magic, 205.632 mph
57 Ray Sherwood, Pleasant Hill, CA, Cassutt, Knotty Boy, 201.681 mph

Action Highlights. Kevin Kelly jumped into the lead at the start and never looked back. His **Barbara Jean 2** was really humming in this heat, and Kevin flew a low, very smooth race. His tight line around the pylons looks a lot like that of Ray Cote - which is a pretty good act to try to follow. At mid-race Eric Matheson and David Hoover went wing to wing for a couple of laps before Eric finally made the pass from high and outside. Bruce Bohannon's troubles continued at the start of this heat. Normally, the leader to the scatter pylon in the Gold races, he was dead last in this Silver preliminary and it took him the first half the race to get going. He was running hard and picking off racers in front of him at the end, but it was too late to work himself up any further than sixth place.

HEAT 1A - 6 LAPS

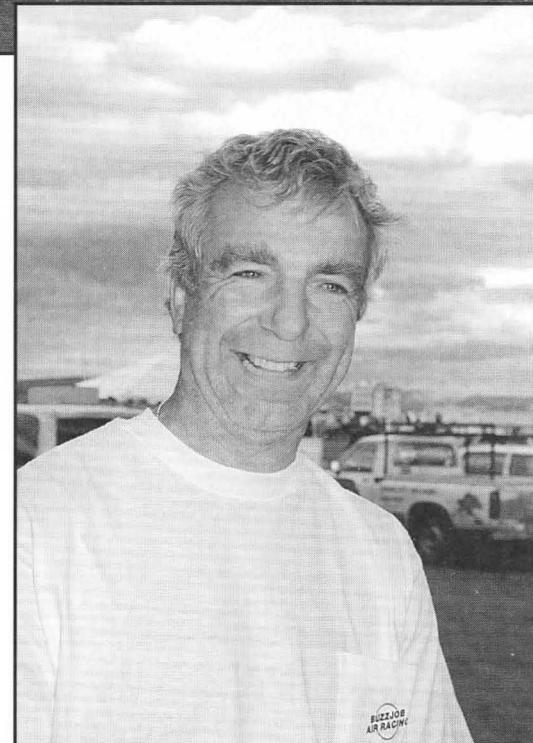
3 Jon Sharp, Lancaster, CA, Sharp DR-90, Nemesis, 248.092 mph
99 Dave Morss, Redwood City, CA, Cassutt, Sahara, 237.195 mph
44 Tom Hauptman, Kula, HI, Shoestring, Judy, 232.395 mph
96 Randy Howell, Discovery Bay, CA, Grove GR-7, Madder Maxx, 232.114 mph
39 Dan Gilbert, Belleville, MI, Gilbert DG-1, Shadow, 231.793 mph
4 Ray Cote, El Cajon, CA, Owl OR-71, Alley Cat,



227.885 mph

36 Steve Myers, Scottsdale, AZ, Kelly F1D, Smiddy's Firefly, 223.845 mph
14 Jim Miller, San Antonio, TX, Miller Special, Pushy Cat, 219.221 mph

Action Highlights. Jim Miller looked like he had solved his vibration problem at the start of this heat. He jumped off to his usual jackrabbit start in **Pushy Cat** and was first around the infamous west scatter pylon. Jon Sharp was third and gaining as the pack swung around and headed back to the start-finish line, which was bad news for the rest of field. In earlier years, Jon would be dead last at the start and take two-thirds of the race to surge by the entire field and take the lead. His flow bench genius, Jack Wells, has found something that allows the **Nemesis** engine to get wound up much faster than before, however, so Jon just pulls up high, sweeps majestically around the turns - and before his competitors know it, he is long gone. Jim Miller did lead the first two laps, but Jon motored by at the start of lap three. By the end he was his usual half lap ahead of his nearest pursuer. Right after Jon's pass, Jim Miller began to slowly slip backwards and was ultimately passed by the entire pack. Jim is a real competitor, so it was obvious he had a serious problem of some sort. Dave Morss inherited second in **Sahara** when Miller began dropping back and had that spot to himself for the rest of the heat. Behind him, however, a real ding dong battle was going on between Tom Hauptman in **Judy** and Randy Howell in **Madder Maxx**. They battled right down to the checkered flag with neither willing to give an inch. Dan Gilbert had crept up on the two at the end in his **Shadow** so from our parallax view from the pits (probably about a 45° angle from the finish line), it appeared the three crossed the line in a dead heat. We had to wait for the results sheets to see who had finished third, fourth and fifth. There were a lot of close finishes this year in all the classes, sometimes for the win but more often for second or third. It must have really been a blast for the pilots.



Guy Paquin of Torrance, CA and his Mong, Buzz Job, winners of the Biplane Silver championship race.

T-28

HEAT 1A - 5 LAPS

28 Rick Raesz, Fort Worth, TX, 268.124 mph
35 Neil Anderson, Ft. Worth, TX, 267.227 mph
11 Dan Lawson, Las Vegas, NV, Skoshi I, 266.071 mph
33 Bruce Wallace, San Carlos, CA, The Bear, 261.148 mph
863 John Herlihy, Carson City, NV, 257.829 mph

Action Highlights. At Phoenix last March a T-28 "demonstration race" was staged in which the pilots flew in a tight pack and jockeyed back and forth to simulate lead changes. The intention was to demonstrate to the air show crowd there what air racing was like. With just five T-28s running at Reno, those of us observing from the pit area were not certain whether this



Patti Johnson and her Mong, Full Tilt Boogie, winners of the Biplane Gold championship race.

was again the case. Whatever, it was probably entertaining for the Reno townspeople who come out for the air show and it gave the race announcers something to sound excited about. The pilots did a fine job of close formation flying as they closed up for the finish in all their events. It was quite a sight to see those big ol' 28s lumbering around a pylon in one close gaggle.

T-6

HEAT 1C - 5 LAPS

75 Al Goss, Woodland, CA, Warlock, 216.241 mph
5 Jim Gist, Granite Shoals, TX, Big Red, 214.829 mph
8 Robert Jones, Federal Way, WA, Crossings Aviation, 212.577 mph
44 Lee Oman, Seattle, WA, Six Shooter, 205.036 mph
92 Steve Clegg, Daytona Beach, FL, Miss Tress, 194.656 mph
66 Tom Martin, Irving, TX, 184.841 mph

Action Highlights. The first round of T-6 heats is really an alignment process to get the field set up for the Bronze, Silver and Gold championship races further down the line and, unfortunately, the result can be some really stretched out fields at the end of five laps. That was the case here, with the third fastest T-6 qualifier, Al Goss and **Warlock**, leading a parade to the finish line.

HEAT 1B - 5 LAPS

21 John Krawczyk, Redding, CA, Mystical Power, 221.182 mph
77 James Good, Casper, WY, Wyoming Wildcatter, 214.793 mph
37 Jim Bennett, Euless, TX, Tinker Toy, 212.456 mph
22 Mary Dilda, Memphis, TN, Two of Hearts, 212.350 mph
30 Bill Eberhardt, Davis, CA, Archimedes, 196.568 mph
3 Dorel Graves, Danville, IL, Slo-Yeller, 184.031 mph

Action Highlights. It must have been a big thrill for John Krawczyk to win his first race in a new ride, and he did it in a runaway. Rookie Mary Dilda did herself proud in this one, also, battling veteran Jim Bennett to the wire. Theirs was another photo finish from our vantage point in the pits, but Bennett managed to take third.

HEAT 1A - 5 LAPS

86 Sherman Smoot, Templeton, CA, Bad Company, 226.207 mph
4 Gene McNeely, Daytona Beach, FL, Four Play, 220.131 mph
55 Fred Johnson, Ocala, FL, Miss Appropriation of Funds, 212.516 mph
9 Bud Granley, Bellevue, WA, Lickety Split, 209.488 mph
7 T. J. Dwelle, Jr., Auburn, CA, Yankee Air Pirate, 204.327 mph
50 Carl Penner, Park City, UT, Big Wind, 199.396 mph

Action Highlights. The heat race align-

ment process had this one figured out precisely: the way they lined up for the start was the way they finished. Pole sitter Sherman Smoot was a half lap ahead when he took the checkered flag.

Unlimited

HEAT 1C MEDALLION 6 LAPS

2 Tom Camp, San Francisco, CA, Yak 11, Maniyak, 335.725 mph
29 Sam Richardson, Aurora, OR, Yak 11/R-2000, Czech Ride, 310.773 mph
81 Rob Patterson, Chino, CA, P-51 Mustang, Lady Jo, 298.415 mph
52 Sherman Smoot, Templeton, CA, Yak 3, 297.200 mph
21 Joe Thibodeau, Denver, CO, P-51 Mustang, Crusader, 296.722 mph
71 Robert Converse, Santa Paula, CA, P-51 Mustang, Huntress III, 293.401 mph
44 Dan Vance, Santa Rosa, CA, P-51 Mustang, Sparky, 261.081 mph

Action Highlights. Tom Camp blew 'em away in the Medallion heat in his P&W powered Yak 11. Sam Richardson progressed from the fifth starting slot to second in his P&W R-2000 powered Yak 11, and for a time it appeared we would see a 1,2,3 Yak finish as T-6 ace Sherman Smoot slipped into third in Tiger Destefani's brand new Yak 3. Rob Patterson got by him on the fifth lap, however, to take the position at the checkered flag.

HEAT 1B BRONZE - 6 LAPS

22 Stu Everhardt, Danville, CA, P-51 Mustang, Merlin's Magic, 360.850 mph
9 Jimmy Leeward, Ocala, FL, P-51 Mustang, Cloud Dancer, 360.385 mph
204 David Price, Santa Monica, CA, Grumman F8F-1 Bearcat, 347.063 mph
11 Brent Hisey, Oklahoma City, OK, P-51 Mustang, Miss America, 346.878 mph
181 Don Crowe, Delta, BC, Sea Fury, Simply Magnificent, 346.730 mph
281 Dennis Sanders, Ione, CA, Hawker T Mk. 20 Sea Fury, 343.165 mph
12 Jim Michaels, Hartland, WI, P-51 Mustang, Queen B, 310.093 mph

Action Highlights. David Price led the first three laps in the Museum of Flying's newly restored F8F-1 Bearcat, then quickly slipped back into the middle of the field and began a wing to wing dice with Brent Hisey in **Miss America**. Stu Everhardt assumed the lead **Merlin's Magic** when Price moved back, but had Jimmy Leeward and **Cloud Dancer** just off his right shoulder the rest of the way. He held on for the win, however. David Price turned up the tap on the last lap and just got his nose past Hisey for third.

HEAT 1A SILVER - 6 LAPS

55 Bob Hannah, Caldwell, ID, P-51 Mustang, Voodoo Chile, 406.254 mph
45 Bill Rheinschild, Van Nuys, CA, P-51 Mustang, Risky Business, 403.704 mph
66 Nelson Ezell, Breckenridge, TX, Hawker Fury R-3350, 403.471 mph
10 Tom Dwelle, Auburn, CA, Sea Fury R-3350, Critical Mass, 381.675 mph
19 Brian Sanders, Sea Fury R-3350, 368.833 mph
16 C. J. Stevens, Santa Rosa, CA, Sea Fury, Baby Gorilla, 367.385 mph
14 Howard Pardue, Breckenridge, TX, Grumman Bearcat, 362.994 mph

Action Highlights. Hurricane Bob Hannah started on the pole and led all the way in his colorful Mustang, **Voodoo Chile**, but there was a good battle just behind him between Nelson Ezell in Howard Pardue's R-3350 powered Bagdad Fury and Bill Rheinschild and his Mustang, **Risky Business**. (Howard had two racers in this heat and chose to fly his Bearcat.) Ezell ran in second until the last lap when Rheinschild slipped by him right at the checkered flag.

FRIDAY THE THIRTEENTH

Friday - and, yes, it was the thirteenth - was the day from hell at Reno '96! It was cold, it was windy and the clouds were obscuring the tops of the surrounding mountains. The Reno/Stead Airport is in the high desert, however, and is so dry that the visibility remained essentially unlimited under the clouds. As noted in the introduction, the 9:00 a.m. Biplane heat 1B was run before the wind came up, but the 1A Biplane and all the Formula One heats were cancelled because of subsequent high winds. The T-6s and T-28s were able to run because they could handle the wind and



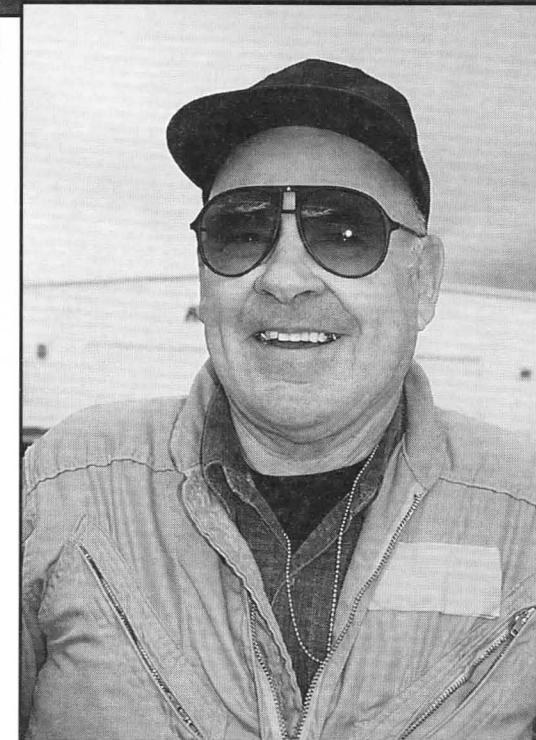
because the ceiling was high enough for them to pull up and out of a race if a mechanical problem resulted. The Unlimiteds weren't so fortunate, however. The clouds just wouldn't lift during the afternoon to give them sufficient altitude to trade speed for in case of a mayday. With the rate of sink the Unlimiteds have with their clipped wings and huge propellers, they need to zoom as high as they can in order to be able to make it around to a runway for a deadstick landing.

Biplane

HEAT 1B - 5 LAPS

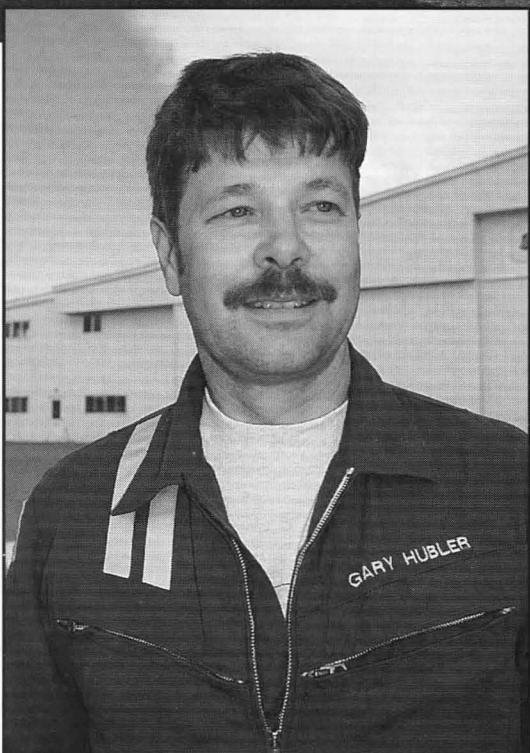
90 Guy Paquin, Torrance, CA, Mong, Buzz Job, 176.154 mph
20 Cris Ferguson, Sunnyvale, CA, Pitts, Let The Good Times Roll, 173.732 mph
10 Del Schulte, Redding, CA, Pitts, Thunder Chicken, 171.945 mph
1 Jeffrey Lo, San Jose, CA, Pitts, Flyin' Lo, 171.839 mph
13 Robert Jones, Tranquility, CA, Pitts, One Arm Bandit, 171.041 mph
7 Bonny Warner, Byron, CA, Pitts, Madd Maxx, 169.909 mph
11 Charlie Chambers, Bend, OR, Smith Miniplane, Stinger, 169.114 mph
39 Steve Deckard, Benicia, CA, Pitts, Magnum, 164.512 mph

Action Highlights. This heat was a perfect example of why I am not a fan of the Biplane category's inverted start procedure. (With the fastest qualifiers to the rear in the race horse, runway start.) The problem is not the inverted start, per se - it's exciting watching the faster racers battle their way up through the field - rather, it is the short duration of the races. Five laps are simply not enough for the faster back row starters to make their way to the front. The result is that the ultimate winner is often second, third or even fourth at the finish line and wins as a result of his or her overall time, adjusted for the starting delay (four seconds for the second row, eight seconds for the third row). If you are down in the pits - where all real race fans are - and unable to hear the PA system, you usually don't know who won until the results sheets are posted, which sometimes takes hours. I doubt very



Carl Swenson, Jr. of Montgomery, TX and his Cassutt, Annie, winners of the Formula One Bronze championship race. Posed with the racer are, left to right, Chuck Proctor, Carl Swenson, Jeff Gardner, Randy Wahlberg and Leonard Hannasch.

much that the system is popular with the general public in the stands either. They are accustomed to seeing the winner cross the finish line first in almost every other kind of racing. I would hate to be a PA announcer trying to explain the four second and eight second timing adjustment to the crowd as an explanation of why the racer that crossed the finish line third was actually the winner. Before you could get half way through, I imagine half the crowd would have tuned out and left to get a hot dog. The Biplane racing group seems to always be worrying whether they will be invited back the following year, due to finances and/or an alleged lack of crowd appeal - and the inverted start certainly isn't helping the latter. I want to see Biplane racing continued, so my vote is for either longer races to allow the inverted start to work as it should, or going back to the normal, fast qualifiers to the front starts.



Gary Hubler of Caldwell, ID and his Cassutt, Mariah, winners of the Formula One Silver championship race. Top photo by Golda Cox

Meanwhile . . . back to Heat 1B. The two fastest qualifiers, Robert Jones and Guy Paquin, had entirely different luck on their starts from the back row. Guy zipped right off in his Mong, **Buzz Job**, and began picking off the slower racers ahead of him, but Robert had a sluggish start. He has his Pitts set up a lot like some of the Formula Ones in that its engine has to get hot before it really begins to develop power. He was dead last for the first two laps, but visibly began to accelerate after that. He was reeling in the planes ahead of him at an alarming rate and was in a position to pass the entire closely bunched field as he headed down the backstretch of the last lap, but as the overtaking airplane, he had to swing high and wide around the west pylons to avoid several racers that were darting in and out and ended up losing several places. Robert admitted afterwards that he was more conservative than he wanted to be on the last turn because of

the incident last year in which he cut inside a racer that had swung wide on a turn and ended up being the target of a protest. The judges ultimately ruled in his favor, but he didn't want to get in that situation again this year and it cost him at least two places and possibly even the win.

In any event, Guy Paquin motored on through the pack for the win, followed by Cris Ferguson in his Pitts, **Let The Good Times Roll**. Behind them the third through seventh place racers came across the finish line in one big gaggle and, indeed, it was some time before we learned how they finished.

As events would transpire, Heat 1B would turn out to be more far reaching than anyone realized at the time. We never got the full story, but apparently there were some mixups both on the part of the Biplane officials and the Reno race officials that caused the Biplane Silver championship race to be omitted from the Sunday schedule. The racers were pushed out on the ready ramp on Sunday morning in hopes a slot could be found for them, but it never happened. Eventually, the Heat 1B results you see above were declared to also be the official results for the Biplane Silver race. Guy Paquin thus became the 1996 Biplane Silver champion . . . and will probably consider 13 his lucky number from now on.

Jeff Lo and Bonny Warner, on the other hand, will probably stay in bed on Friday the Thirteenth from now on. After the completion of the race they landed and locked up wings on the runway during their roll-outs. Both Pitts were rather severely damaged, but, fortunately, neither pilot was injured.

T-28

HEAT 2A - 5 LAPS

- 11 Dan Lawson, Skoshi I, 258.967 mph
- 28 Rick Raesz, 258.402 mph
- 33 Bruce Wallace, The Bear, 256.638 mph
- 35 Neil Anderson, 256.204 mph
- 863 John Herlihy, 255.964 mph

Action Highlights. Again, there was a lot of jockeying around and a bunching up

for the finish, and, again, the pilots did a fine job of wing to wing flying at the end. Friday was Dan Lawson's turn to win.

T-6

HEAT 2C - 5 LAPS

- 22 Mary Dilda, Two of Hearts, 208.389 mph
- 50 Carl Penner, Big Wind, 199.383 mph
- 7 T. J. Dwelle, Jr., Yankee Air Pirate, 199.272 mph
- 92 Steve Clegg, Miss Tress, 191.722 mph
- 3 Dorel Graves, Slo-Yeller, 181.293 mph
- 66 Tom Martin, 181.209 mph

Action Highlights. Mary Dilda blew 'em away on this blustery day. The Memphis flight simulator instructor led from start to finish and was still stretching her lead at the checkered flag. There were a couple of good battles going on behind her, however. Carl Penner and T. J. Dwelle, Jr. battled hammer and tong to the finish for second place, as did Dorel Graves and Tom Martin for fifth. Steve Clegg cruised serenely alone to fourth place in the middle of these two dogfights.

HEAT 2B - 5 LAPS

- 21 John Krawczyk, Mystical Power, 228.114 mph
- 4 Gene McNeely, Four Play, 222.052 mph
- 5 Jim Gist, Big Red, 218.780 mph
- 37 Jim Bennett, Tinker Toy, 217.114 mph
- 9 Bud Granley, Lickety Split, 216.225 mph
- 44 Lee Oman, Six Shooter, 209.346 mph

Action Highlights. John Krawczyk had the power in this one, Mystical and otherwise, and got an easy win. Jim Bennett nipped at Gene McNeely's heels all the way, but couldn't manage a pass. Jim Gist didn't get a good start and was never able to gain any ground . . . or, maybe, he was just exercising a little strategy.

SATURDAY

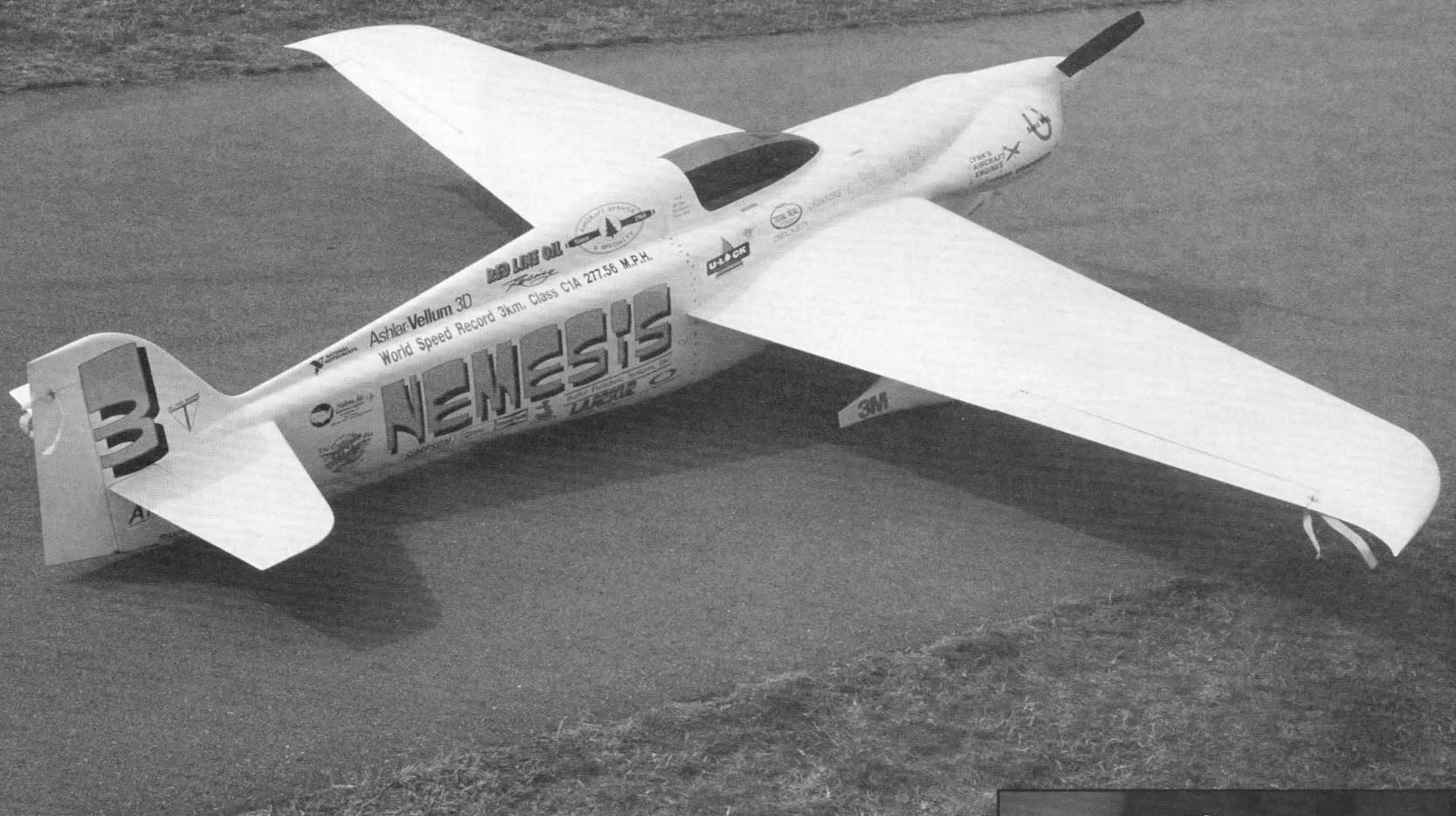
Biplane

BRONZE CHAMPIONSHIP 5 LAPS

- 39 Steve Deckard, Pitts, Magnum, 170.515 mph
- 62 Mike Harris, Pitts, Sonoma Red, 167.570 mph
- 55 Ray Krasovich, Pitts, Ole Yeller, 167.444 mph
- 25 Clifford Magee, Pitts, Low Rent High Roller, 153.589 mph
- 3 David Rose, Mong, Thunder Bug, 139.492 mph
- 4 Earl Allen, Pilgrim Prog. Spl., Earl-E-Bird, 104.431 mph

Action Highlights. Steve Deckard won his first trophy at Reno by winning the Biplane Bronze championship race in his Pitts, **Magnum**. He beat the inverted start system by starting on the front row and outrunning the supposedly faster racers behind him. Earl Allen was having so much fun at the rear of the field with his Earl-E-Bird, waving to competitors and the crowd, that he probably didn't even notice that he was lapped twice in five laps by the streaking Deckard!

HEAT 1A - 5 LAPS



40 Patti Johnson, Edgewater, FL, Mong, Full Tilt Boogie, 214.130 mph

88 Jim Smith, Jr., Chester, CA, Mong, Glass Slipper, 204.172 mph

00 Steve Brown, Pitts, Reno, NV, Miss RenoAir, 201.904 mph

27 Norman Way, Stockton, CA, Pitts, Magic, 195.885 mph

21 Earl Allen, Auburn, CA, Pitts, Class Action, 187.249 mph

30 Michael Stubbs, Yucaipa, CA, Pitts, PattyAnne, 183.885 mph

16 Frank Jerant, Walnut, CA, Pitts, Reno Rabbit, 182.541 mph

12 Charlie Greer, San Diego, CA, Pitts, Slo Poke, 181.984 mph

Action Highlights. The inverted start made absolutely no difference in this heat. Patti Johnson started last, roared by the entire field at the start of the third lap and was somewhere over in the next time zone by the end of five laps. Steve Brown was second across the finish line, but with the time adjustment, finished third. Jim Smith was third across the finish line but was actually second. Norman Way finished fourth . . . and actually was fourth. It's just too confusing after that!

Formula One

HEAT 2C - 6 LAPS

43 John Housley, Cassutt, Aero Magic, 217.138 mph

19 Scott Kuenzi, Cassutt, Okie Streaker, 206.524 mph

10 Bobby Budde, Cathaway R-5, El Bandito, 206.276 mph

17 Carl Swenson, Jr., Cassutt, Annie, 205.381 mph

27 Ray Sherwood, Cassutt, Silver BB, 197.786 mph

29 William R. Nusz, Cassutt, Baby Dragon, 185.564 mph

6 George Budde, Cassutt, Okie Stroker, DNF Lap 4

Action Highlights. John Housley by the proverbial country mile! He really had 'em covered in this one. Wa-a-y back, like on the other side of the race course, Scott Kuenzi and Bobby Budde were battling away and came across the start/finish line in what, again, looked like a photo finish from the pits. Scott Kuenzi had a nose ahead at the flag . . . and Carl Swenson was just a few plane lengths behind Bobby Budde in fourth. Bobby's brother, George, had a problem of some sort and pulled out on Lap 4, but landed safely.

HEAT 2B - 6 LAPS

89 Bruce Bohannon, Miller Spl., Pushy Galore, 231.817 mph

11 David Hoover, Cassutt, Frenzy, 227.222 mph

95 Gary Hubler, Cassutt, Mariah, 226.954 mph

36 Steve Myers, Kelly F1-D, Smiddy's Firefly, 216.718 mph

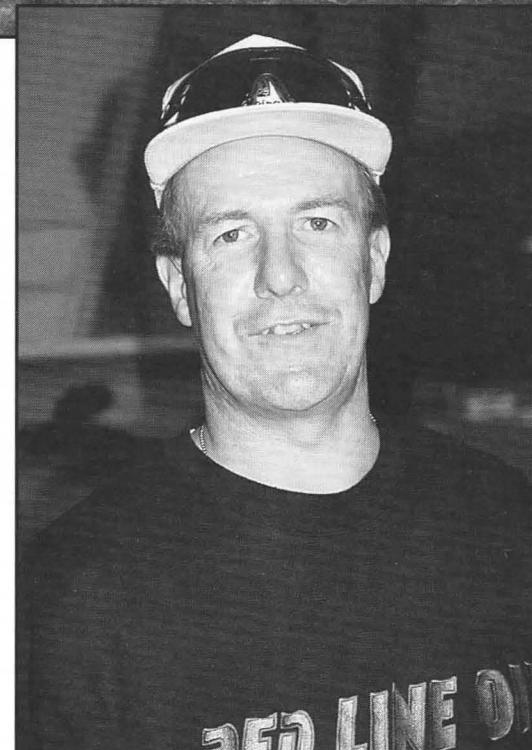
2 Bobby Budde, Wagner, Okie, 210.300 mph

40 Patti Johnson, Cassutt, Miss USA, 201.156 mph

14 Jim Miller, Miller Spl., Pushy Cat, Did Not Start

Action Highlights. Bruce Bohannon had a mission in this heat: win . . . and win at a fast enough speed to get boosted into the Formula One Gold championship race on Sunday. He accomplished both, but it didn't look good for him at the start. Normally as quick as a Funny Car at the start, he got off sluggishly, but got **Pushy Galore** wound up within a lap and began charging for the front. He took the lead at the start of the third lap and was long gone after that. David Hoover and Gary Hubler had a battle going for second and flashed across the start/finish line in still another apparent photo finish . . . I don't recall a year at Reno with so many of them. Hoover had the edge, however, and took second.

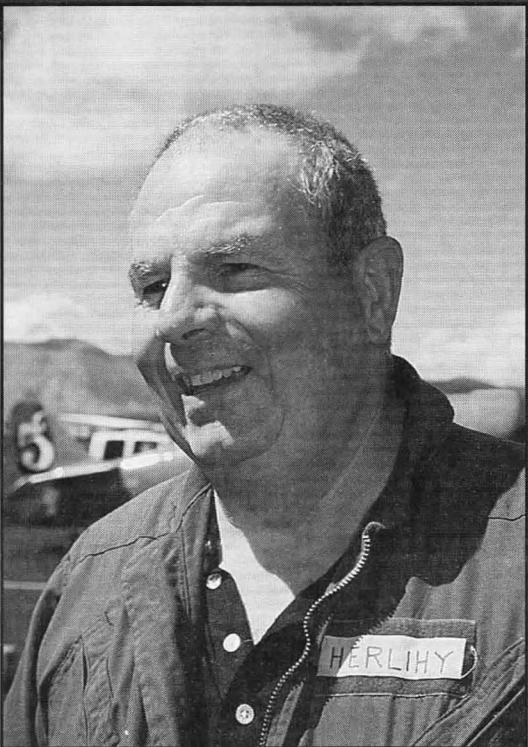
Steve Myers got nailed for a pylon cut on Lap 5, but it did not affect his position at



Jon Sharp of Lancaster, CA and his Sharp DR-90, Nemesis, winners of the Formula One Gold championship race. Jon also set a new Reno Formula One qualifying record of 258.270 mph.

the finish. He was far enough behind Hubler and far enough ahead of Bobby Budde that the penalty really didn't matter.

Jim Miller did not start Heat 2B, a real rarity for him. We later learned that the reason for his problem in his previous heat had been the fact that a magneto had dropped out of its mounting just far enough to allow its drive gear to begin chewing up the case. That meant metal in the engine, of course, and although Jim and his crew worked virtually around the clock to clean it out, they just couldn't get the racer ready for this heat. That threw **Pushy Cat** back into the Bronze race on Sunday . . . if they could



John Herlihy of Carson City, NV and his No. 863, winners of the T-28 Gold championship race.

make it to the line.

HEAT 2A - 6 LAPS

- 3 Jon Sharp, Sharp DR-90, Nemesis, 249.883 mph
- 99 Dave Morss, Cassutt, Sahara, 241.354 mph
- 44 Tom Hauptman, Shoestring, Judy, 237.589 mph
- 4 Ray Cote, Owl OR-71, Alley Cat, 236.502 mph
- 39 Dan Gilbert, Gilbert DG-1, Shadow, 235.284 mph
- 42 Kevin Kelly, Kelly F1D, Barbara Jean 2, 231.522 mph
- 92 Eric Matheson, Cassutt, Yellow Peril, 225.189 mph
- 96 Randy Howell, Grove GR-7, Madder Maxx, 219.136 mph

Action Highlights. Dave Morss, who was beginning to show surprising speed in **Sahara**, led the pack around the dreaded west scatter pylon and held the lead for a lap and a half. At that point the pink and pearl **Nemesis** came steaking by, on the way to still another runaway victory. Jon Sharp's consecutive victory streak is amazing in itself, but equally impressive are his

winning margins - usually a half lap or more. Jon has always been a superb race pilot - he was when he was flying his old taper-wing Cassutt, **Aero Magic** - but the more he wins, and wins by such consistently wide margins, the more we all realize just what an engineering *tour de force* **Nemesis** really is. It has what aerodynamicist Bruce Carmichael says is the smallest flat plate area of any airplane ever built, it has the most advanced laminar flow wing ever put on a racer and it has what is obviously the most highly refined legal engine ever operated in a Formula One racer. It's a team effort that air racing historians will be raving about long after all of us have gone on to our just rewards.

What they may not realize, however, is that **Nemesis** was built in a dusty private hangar at Mojave, CA . . . on a financial shoestring. It's the product of brains, not big bucks.

Dave Morss held on to second, by a wide margin, actually. Behind him, Tom Hauptman and Randy Howell took up right where they left off on Thursday and battled wing to wing throughout the race. They ended up in another photo finish, but after the event it was learned that Randy had cut two pylons in his all-out effort to beat Tom Hauptman - the Inner 6 pylon on Lap 1 and Inner 3 on Lap 2. The resulting 24 second penalty cut his average speed from around 237 to just 219.136 mph, which relegated him to last place.

Ray Cote and Dan Gilbert were also very close at the conclusion of this heat, but Ray managed to take fourth in **Alley Cat**. Ray is a threat in the pits as well as out on the race course. We won't give away his secrets, but be forewarned that this practical joker is armed with a water pistol, a pooch and an evil plan that will have you hopping all over the place!

T-28

HEAT 3A - 5 LAPS

- 28 Rick Raesz, 263.198 mph
- 11 Dan Lawson, Skoshi I, 262.993 mph
- 863 John Herlihy, 262.783 mph

- 35 Neil Anderson, 262.573 mph
- 33 Bruce Wallace, The Bear, 261.403 mph

Action Highlights. The speeds tell the tale . . . 1.795 mph between last place and first. Another five plane photo finish from the viewing angle in the pits. Another great job of formation flying.

T-6

BRONZE - 5 LAPS

- 7 T. J. Dwelle, Jr., Yankee Air Pirate, 207.883 mph
- 50 Carl Penner, Big Wind, 202.956 mph
- 30 Bill Eberhardt, Archimedes, 197.181 mph
- 3 Dorel Graves, Slo-Yeller, 194.042 mph
- 92 Steve Clegg, Miss Tress, 193.724 mph
- 66 Tom Martin, 188.207 mph

Action Highlights. Tom "T. J." Dwelle, Jr. is the son of Tom Dwelle, the Reno T-6 National Champion in 1989 and 1990. Carrying on the family tradition by winning the 1996 T-6 Bronze championship race was a big thrill for T. J. and a source of tremendous pride for father, Tom. Actually, ol' Dad's cup was just about running over that week. His other son, Ken, is an F-117 Stealth Fighter pilot and had just been ordered to the Middle East to help thwart another Gulf War. An Air Force Skyraider pilot in the Vietnam War, Tom Sr. was also proud of having a son following in his military footsteps.

T. J. has set his sights on becoming a pilot with a major airline. He has obtained his Air Transport Pilot license and is on the ladder building time toward his goal. He spent the past year logging twin time for a Grand Canyon air tour operator, and was hoping for a call from a commuter air line when we saw him at Reno. A really sharp young man and obviously an excellent pilot, any airline would do well to have him within their ranks.

T. J. had no problems in this heat. He led from the start and had time to savor his first trophy win. This was, nevertheless, a fun race to watch in the mid laps. Bill Eberhardt and Dorel Graves dueled wing tip to wing tip, as did Steve Clegg and Tom Martin. The field was pretty well spaced out by the end of the five laps, however.

HEAT 2A - 5 LAPS

- 86 Sherman Smoot, Bad Company, 222.735 mph
- 75 Al Goss, Warlock, 220.910 mph
- 77 James Good, Wyoming Wildcatter, 214.460 mph
- 55 Fred Johnson, Miss Appropriations of Funds, 212.506 mph
- 8 Robert Jones, Crossings Aviation, 212.315 mph
- 22 Mary Dilda, Two of Hearts, 209.821 mph

Action Highlights. Although Sherman Smoot didn't really run away with the race, he led from start to finish. Fred Johnson and Robert Jones arrived at the finish line at almost the same time, but otherwise, the field was pretty well spaced out at the end.

Sherman Smoot was a busy man on Saturday, racing his T-6 in the morning and the Yak 3 in the early afternoon. Loved every minute of it, too!

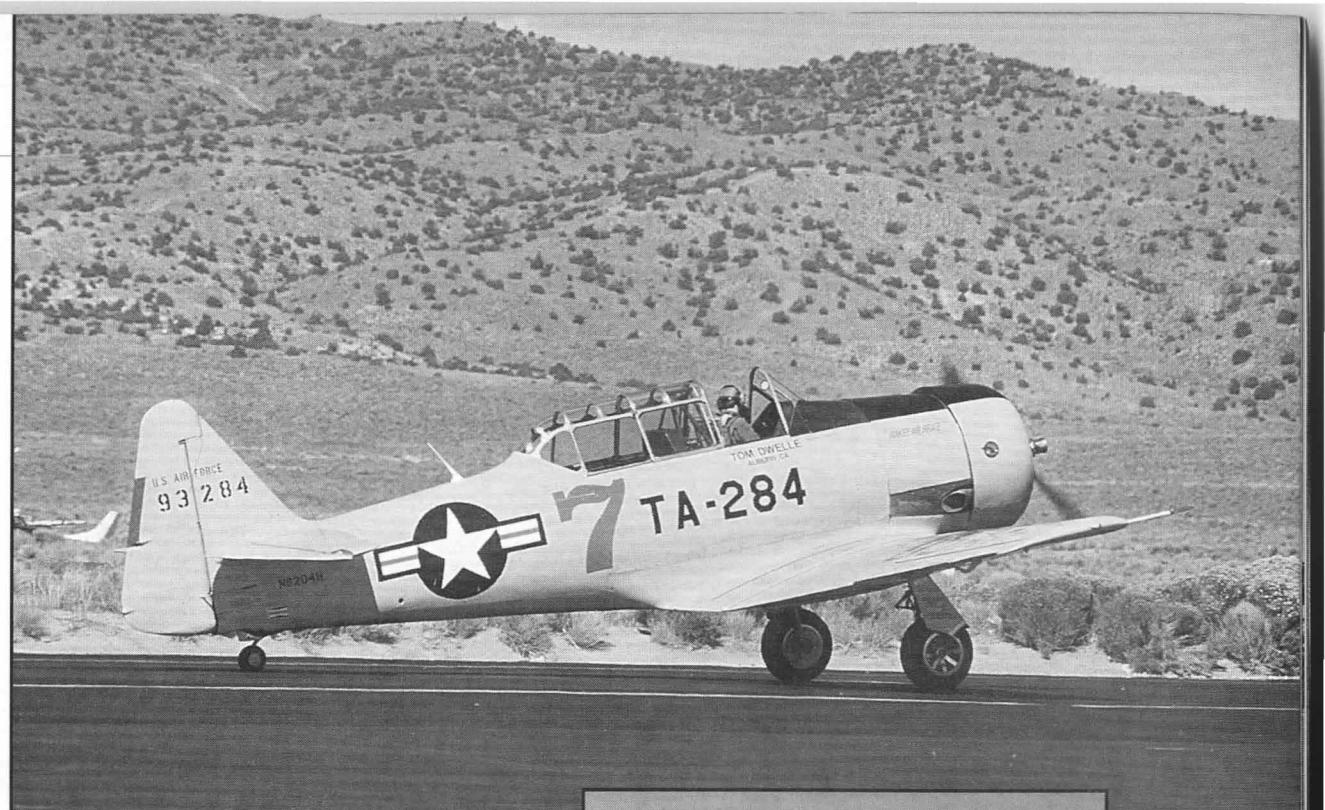
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HEAT 2C - 6 LAPS

29 Sam Richardson, Yak 11, Czech Ride, 333.378 mph
12 Jim Michaels, P-51 Mustang, Queen B, 332.924 mph
71 Robert Converse, P-51 Mustang, Huntress III, 332.263 mph
2 Tom Camp, Yak 11, Maniyak, 331.384 mph
52 Sherman Smoot, Yak 3, 324.522 mph
21 Joe Thibodeau, P-51 Mustang, Crusader, 320.853 mph
81 Rob Patterson, P-51 Mustang, Lady Jo, 317.483 mph
44 Dan Vance, P-51 Mustang, Sparky, 312.202 mph

Action Highlights. Tom Camp led the first lap in his Yak 11, but was passed by Sam Richardson on the second lap in his very similar Yak . . . and later by both Jim Michaels and Robert Converse. The two of them had their own private battle all the way and were pushing so hard that they

Jim Gist of Granite Shoals, TX and the T-6 Big Red, winners of the T-6 Silver championship race.



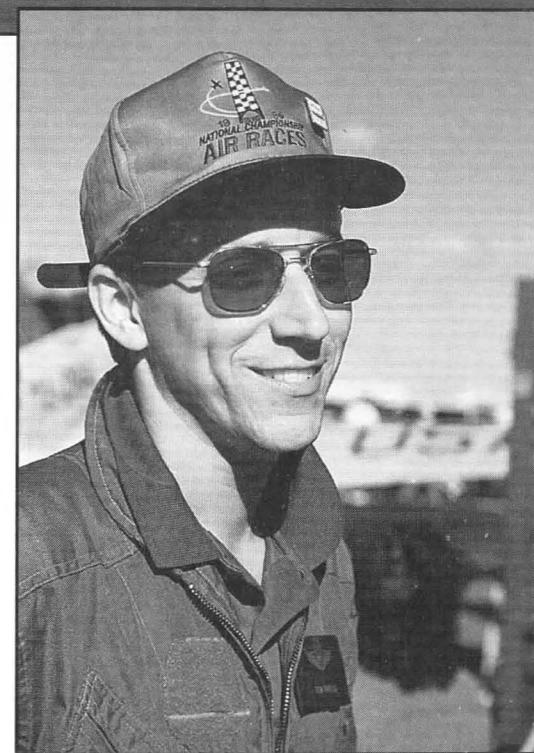
nearly ran down Richardson at the end. Sam took the win, however, in his immaculate **Czech Ride**, which is finished in the colors and markings of a World War II Russian ace and general.

HEAT 2B - 6 LAPS

16 C. J. Stevens, Sea Fury, Baby Gorilla, 374.684 mph
22 Stu Eberhardt, P-51 Mustang, Merlin's Magic, 374.512 mph
14 Howard Pardue, Grumman Bearcat, 362.080 mph
181 Dennis Sanders, Sea Fury T Mk. 20, 355.621 mph
9 Jimmy Leeward, P-51 Mustang, Cloud Dancer, DNF Lap 6
11 Brent Hisey, P-51 Mustang, Miss America, DNS
204 David Price, Grumman Bearcat, DNS

Action Highlights. David Price did not bring his Bearcat to the line for this heat, and Brent Hisey taxied out with the rest of the pack but came back to the pits shortly after the rest of them took off.

C. J. Stevens took the lead as the racers came down the chute to start the pace lap and held it to the end of the race, but Stu Eberhardt pushed him hard all the way. He



T. J. Dwelle, Jr. of Auburn, CA and his T-6, Yankee Air Pirate, winners of the T-6 Bronze championship race.

pulled along side C. J. in the turn at the far end of the race course, but C. J. held on to take the checkered flag by about a plane length.

Jimmy Leeward was in fourth place early in the heat, but faded in the late laps and pulled out before the completion of the sixth lap. Don Crow and Dennis Sanders put on a superb exhibition of close formation flying for the entire six laps. Dennis parked himself right off Don's right wing and did not appear to budge an inch during the entire race.

Howard Pardue? He found himself a clear spot between the Stevens/Eberhardt and Crowe/Sanders battles and just motored in unmolested to third place.

HEAT 2A - 6 LAPS

4 David Price, P-51 Mustang, Dago Red, 479.929 mph
7 Bill "Tiger" Destefani, P-51 Mustang, Strega, 477.632 mph
77 John Penney, Grumman Bearcat, Rare Bear,





Sherman Smoot of Templeton, CA and his T-6, Bad Company, winners of the T-6 Gold championship race.

473.160 mph

55 Bob Hannah, P-51 Mustang, Voodoo Chile, 422.052 mph

45 Bill Rheinschild, P-51 Mustang, Risky Business, 416.959 mph

66 Nelson Ezell, Bagdad Fury, 400.628 mph

19 Brian Sanders, Sea Fury, 396.360 mph

10 Tom Dwelle, Sea Fury, Critical Mass, 395.108 mph

Action Highlights. With two racers with qualifying laps in excess of 490 mph running in this heat and another one capable of going that fast, you can bet everyone at Reno was up and cheering as the MiG pace plane turned 'em loose and they came thundering down the chute. David Price got the jump on the field in **Dago Red** and was leading when the tightly bunched pack stood on their left wings and pulled around Pylons 4, 5 and 6 at the far end of the

course. Tiger Destefani was a close second in **Strega** and John Penney was third in the **Rare Bear**. As they came down the back straight and began banking into Pylons 7, 8 and 9, the awesome wail of two Merlin engines at well over 100 inches of manifold pressure swept over the pits like a shock wave, sending shivers down everyone's spine. **Rare Bear**'s R-3350 sounds like rolling thunder when it comes by, but it is the sound of a brute, irresistible force that might roll on forever. A Merlin being pushed as hard as those in **Dago Red** and **Strega** emits a sound of extreme distress . . . like something that is just about to explode into a million pieces. The anxiety it produces has certainly been justified in the past, because we've heard and seen quite a number of them self-destruct at Reno over the years, including a few in both **Dago Red** and **Strega**.

It didn't happen on this day, however. For lap after lap Price and Destefani used as much of Dwight Thorn's magic as they dared in a preliminary heat, and their one, two positions did not vary a great deal. At the checkered flag all the racers pulled up and off the course to begin their cool down before landing . . . all of them except David Price. Inexplicably, he remained down on the course and kept his throttle in it all the way around for an additional lap . . . and, amazingly, for still another one! What was happening? Did he think this was an eight lap heat? All around us we could hear people on hand-held radios yelling, "The race is over, pull out, pull out! Don't use up your engine!" Finally, at the conclusion of his eighth lap, Price did pull up and off the course. When he taxied in, a gasp went up along the show line because the left side of the fuselage was covered with oil! The engine seemed to be running nicely and the crew was not in a panic mode to have Price shut down the engine, put poor ol' **Dago Red** was certainly a mess! When the bottom cowling was removed a little later in the racer's pit, several quarts of black oil were

poured from it. As it turned out, the source of the oil was a plumbing rather than an internal mechanical failure and was easily repaired - but it had certainly looked ominous initially.

While everyone was crowded around the **Dago Red** pit, **Strega**, was being towed in and showed no signs of distress. It was clean as a pin and apparently ready to go racing again with no more than the normal between-race maintenance and checks.

The **Rare Bear**, which had kept the leaders in sight but did not appear to have attempted a challenge to them, also came in with nothing more than the usual swoopy smudge of exhaust detritus down the side of the fuselage . . . but there were indications that all was not well. The Shelton crew immediately removed the cowling and began ministering to the big Wright. A little later and all day on Sunday, the **Bear** was seen being towed to the ramp for runup - and, worst of all, John Penney went up several times for test flights. Obviously something was amiss, but, of course, no word was being leaked to competitors.

Voodoo Chile also came back from this heat with oil down the side of the fuselage. Bob Hannah had battled with Bill Rheinschild through the early laps and had finally passed him, but it appeared he had very nearly used up his Merlin in the process. We would have to wait until the Gold race on Sunday to see if repairs could be made.

SUNDAY

Biplane

BIPLANE SILVER - 6 LAPS

*"The Race That Never Was"
See Friday's Heat 1B Results*

BIPLANE GOLD - 6 LAPS

40 Patti Johnson, Mong, Full Tilt Boogie, 212.811 mph

- 21 Earl Allen, Pitts, Class Action, 204.849 mph
- 88 Jim Smith, Jr, Mong, Glass Slipper, 201.180 mph
- 00 Steve Brown, Pitts, Miss RenoAir, 200.489 mph
- 27 Norman Way, Pitts, Magic, 199.158 mph
- 12 Charlie Greer, Pitts, Slo Poke, 183.661 mph
- 16 Frank Jerant, Pitts, Reno Rabbit, 181.160 mph
- 30 Michael Stubbs, Pitts, PattyAnne, 180.931 mph

Action Highlights. Michael Stubbs led the inverted start to the scatter pylon in **PattyAnne** and Frank Jerant was in the lead at the completion of the first lap, but all eyes were on the racer that came off the runway last. Patti Johnson's **Full Tilt Boogie** gets off slowly and takes a lap or so to really get wound up, but when it does, she begins mowing down the field with effortless abandon. Patti had blown by the entire field by the start of the third lap and just kept extending her lead until she took the checkered flag and another Biplane Gold championship.

Patti's greatest challenge came when she tried to land her racer in the blustery wind that had been increasing in velocity even while the Biplane Gold had been in progress. **Full Tilt Boogie** sits up on a tall, spindly, low drag, cantilever gear that makes the airplane a handful on the ground even in good conditions, so when Patti made her first attempt to land on the air show runway 8/26, the crosswind was so bad that she elected to go around and try another one. Reno/Stead has three runways, but, unfortunately, not one was into the wind. After a second go-around on the closed runway in front of the Air National Guard hangar and still another on 26, she bit the bullet and came back for a third try on 26. She got it down this time, but had a scary moment on rollout when a gust lifted her left wing. She handled it just fine, however, and probably breathed a big sigh of relief when she made it to the ramp and shut down. Patti's problems were unique to her racer, but it was tough for all the Biplane and, later, Formula One pilots.

Earl Allen moved up during the race from the second row to second overall, and Jim Smith and Steve Brown made it to third and fourth respectively from the back row. The three front row starters ended up in the last three places in the final standings.

Formula One

FORMULA ONE BRONZE 8 LAPS

- 17 Carl Swenson, Jr, Cassutt, Annie, 222.413 mph
- 40 Patti Johnson, Cassutt, Miss USA, 212.801 mph
- 6 George Budde, Cassutt, Okie Stroker, 210.342 mph
- 27 Ray Sherwood, Cassutt, Silver BB, 206.340 mph
- 29 William R. Nusz, Cassutt, Baby Dragon, 192.518 mph
- 14 Jim Miller, Miller Special, Pushy Cat, Did Not Finish Lap 6
- 57 Dave Morss, Cassutt, Knotty Boy, DNS

Action Highlights. Carl Swenson had no trouble winning the 1996 Formula One Bronze championship race. He blew 'em away! Patti Johnson, flying her second championship race of the day, finished a distant second and probably suffered a little knowing this was what it's like for her bi-

plane competitors when she rips by them in **Full Tilt Boogie**. Or, maybe not.

Jim Miller had been relegated to the Bronze finale as a result of his DNS on Saturday and hung in there in his wounded **Pushy Cat** until the sixth lap, but finally had to drop out. Dave Morss' listing as a DNS in this event was a mere paperwork formality. The Cassutt **Knotty Boy** he was scheduled to fly in the slower events had been found to have a damaged horizontal stabilizer and was grounded.

FORMULA ONE SILVER 8 LAPS

- 95 Gary Hubler, Cassutt, Mariah, 239.557 mph
- 96 Randy Howell, Grove GR-7, Madder Maxx, 232.759 mph
- 92 Eric Matheson, Cassutt, Yellow Peril, 229.650 mph
- 36 Steve Myers, Kelly F1D, Smiddy's Firefly, 224.870 mph
- 43 John Housley, Cassutt, Aero Magic, 216.956 mph
- 2 George Budde, Wagner, Okie, 212.796 mph
- 19 Scott Kuenzi, Cassutt, Okie Streaker, 201.176 mph
- 10 Bobby Budde, Cathaway, El Bandito, 200.384 mph

Action Highlights. Eric Matheson was the first around the scatter pylon, but he was passed just seconds later by Gary Hubler. Gary had *Æem* covered in this race and was well out in front when he took the checkered flag. Matheson held second until about mid-race, when he was passed by Randy Howell in the long-winged **Madder Maxx**. On the final lap, this event looked like a well spaced, single file parade, with only Scott Kuenzi and Bobby Budde close together at the end of the line.

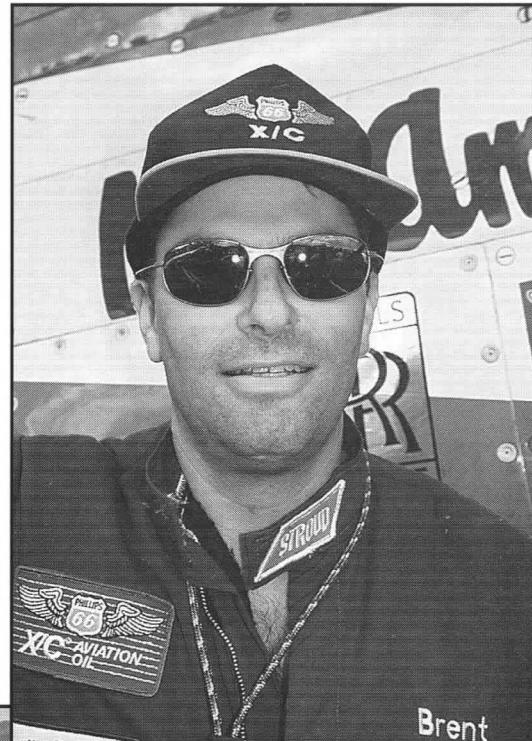
FORMULA ONE GOLD 8 LAPS

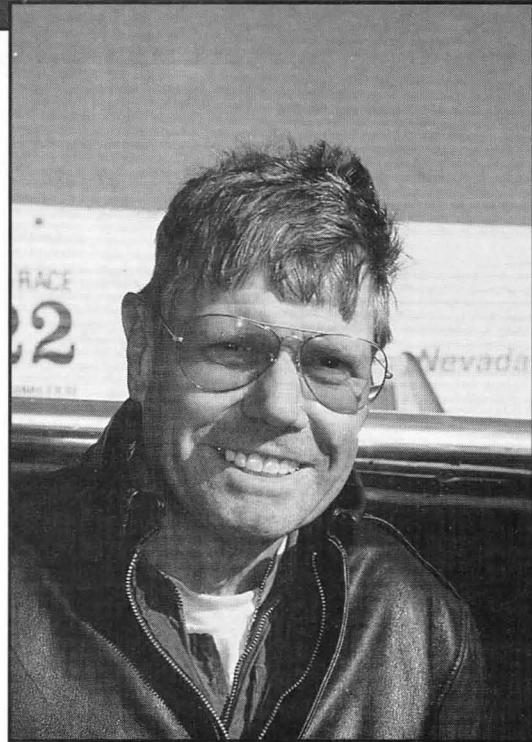
- 3 Jon Sharp, Sharp DR-90, Nemesis, 238.950 mph
- 4 Ray Cote, Owl, OR-71, Alley Cat, 231.669 mph
- 99 Dave Morss, Cassutt, Sahara, 230.205 mph
- 44 Tom Hauptman, Shoestring, Judy, 229.691 mph
- 39 Dan Gilbert, Gilbert DG-1, Shadow, 227.301 mph
- 89 Bruce Bohannon, Miller Special, Pushy Galore, 222.093 mph
- 42 Kevin Kelly, Kelly F1D, Barbara Jean 2, 221.500 mph
- 11 David Foster, Cassutt, Frenzy, 220.801 mph

Action Highlights. Imagine a Formula One Gold Championship race with Jon Sharp the winner **slower** than the Silver! That's how incredibly rough it was out on the course a mid-day when the Gold was run. Jon later said his G-Meter was bouncing between plus six and minus three all eight laps, and that others in the race had seen as much as seven Gs! Turbulence slows down any airplane, and even the invincible **Nemesis** was nearly eleven mph slower than on Saturday.

Otherwise, however, it was typical of the Formula One Gold races we've seen at Reno since 1991. Dave Morss got the jump at the start, followed closely by Bruce Bohannon and they managed to stave off the inevitable for an entire lap before the dreaded pink-on-pearl streak reflected momentarily on the tops of their canopies as it sped by overhead. About five minutes later . . . six minutes, fourteen point eighty-four seconds from the start . . . Jon and **Nemesis** took the checkered flag for their sixth straight Reno Formula One Gold championship. Jon also won two earlier Golds (1982 and 1986) in his old taperwing Cas-

Dr. Brent Hisey of Oklahoma City and his P-51, Miss America, winners of the Unlimited Bronze championship race.





Stu Everhardt of Danville, CA and his P-51, Merlin's Magic, winners of the Unlimited Silver championship race.

T-28

T-28 GOLD - 5 LAPS

- 863 John Herlihy, 263.312 mph
- 35 Neil Anderson, 262.831 mph
- 11 Dan Lawson, Skoshi I, 262.106 mph
- 28 Rick Raesz, 261.160 mph

33 Bruce Wallace, The Bear, 245.544 mph

Action Highlights. John Herlihy was at the front of the final swarm of T-28s that swept by the start/finish line just a few wingspans apart. Bruce Wallace was among them, but cut three pylons during five laps and was dropped to last place in the final tally.

It's hard to come up with a constructive evaluation of the T-28 debut at Reno. There were only five of them and they did not appear to have been prepared in any visible way for the races. Until more show up and have to seriously contend for a starting spot as well as trophies, I think we have to re-serve judgment on whether this is a viable new racing class.

T-6

T-6 SILVER - 6 LAPS

- 5 Jim Gist, Big Red, 219.524 mph
- 8 Robert Jones, Crossings Aviation, 218.593 mph
- 55 Fred Johnson, Miss Appropriation of Funds, 216.621 mph
- 9 Bud Granley, Lickety Split, 215.237 mph
- 22 Mary Dilda, Two of Hearts, 214.940 mph
- 44 Lee Oman, Six Shooter, 211.246 mph

Action Highlights. Jim Gist led all the way to win the T-6 Silver championship race. Fred Johnson was second for the first two and a half laps, but Robert Jones was right on his tail. Jones finally made a high and wide pass to take second - but then had Johnson breathing down his neck. At mid-race Johnson suddenly pulled up while rounding the west pylons as if he had a problem of some sort, but promptly put the nose down and dove back into the mele without losing his position. The final three, Granley, Dilda and Oman, held their positions from start to finish.

T-6 GOLD - 6 LAPS

- 86 Sherman Smoot, Bad Company, 221.677 mph
- 75 Al Goss, Warlock, 217.232 mph
- 21 John Krawczyk, Mystical Power, 216.878 mph
- 4 Gene McNeely, Four Play, 215.344 mph

- 77 James Good, Wyoming Wildcatter, 208.997 mph
- 37 Jim Bennett, Tinker Toy, 207.572 mph

Action Highlights. Sherman Smoot got a good jump on the field at the start and was never headed. Krawczyk was second throughout most of the race, but Al Goss never let up in his effort to pass. He finally made it on the last lap. No one else was able to advance a position in the event.

Unlimited

UNLIMITED BRONZE 6 LAPS

- 11 Brent Hisey, P-51, Miss America, 365.258 mph
- 9 Jimmy Leeward, P-51, Cloud Dancer, 365.067 mph
- 21 Joseph Thibodeau, P-51, Crusader, 332.460 mph
- 81 Rob Patterson, P-51, Lady Jo, 313.026 mph
- 31 Art Vance, P-51, Million Dollar Baby, 308.552 mph
- 44 Dan Vance, P-51, Sparky, 265.347 mph
- 52 Sherman Smoot, Yak 3, DNF Lap 6
- 204 David Price, Bearcat, DNS

Action Highlights. The Unlimited Bronze initially appeared to be the biggest mismatch of the weekend. Jimmy Leeward jumped out to a **huge** lead - a full half lap around the 9.125 mile course at one point - then visually and audibly throttled back to cruise to the victory. Brent Hisey, however, was coming on like gangbusters. He had been held up getting around slower aircraft on the pylons at the far end of the course on the pace lap, but once by . . . and once Jimmy throttled back . . . began cutting deeply into the lead on every lap. By the start of the last lap he had caught up with Leeward and began setting himself up for a pass. Apparently, Jimmy was not able to hear his pit crew on his radio, because he was still cruising serenely on and obviously unaware that Brent was stalking him right off his right shoulder. As the two came around the final turn and headed for the start/finish line, Brent firewalled **Miss America** and made a dramatic pass just yards before taking the checkered flag.

The only other excitement in the Unlimited Bronze was Sherman Smoot's mayday on the last lap. He was able to get the Yak 3 down safely, however.

UNLIMITED SILVER 7 LAPS

- 22 Stu Eberhardt, P-51, Merlin's Magic, 375.061 mph
- 14 Howard Pardue, Bearcat, 374.778 mph
- 181 Don Crowe, Sea Fury, Simply Magnificent, 361.808 mph
- 281 Dennis Sanders, Sea Fury, 352.196 mph
- 2 Tom Camp, Yak 11, Maniyak, 349.882 mph
- 12 Jim Michaels, P-51, Queen B, 345.249 mph
- 29 Sam Richardson, Yak 11, Czech Ride, 326.413 mph
- 71 Robert Converse, P-51, Huntress III, DNF Lap 1

Action Highlights. Stu Eberhardt led every lap of the Unlimited Silver **at the start/finish line**, but he was passed at a critical time in the seven lap finale and had to go all out to salvage the win. Howard Pardue had been on his tail from the start and finally made the pass on the far end of the race course on the last lap. Eberhardt



built up a head of steam coming down the back straight, however, and came slashing around Pardue on the final turn into the homestretch to take the victory. That was two exciting Unlimited finishes in a row, which left the crowd wondering what was in store in the Gold championship race.

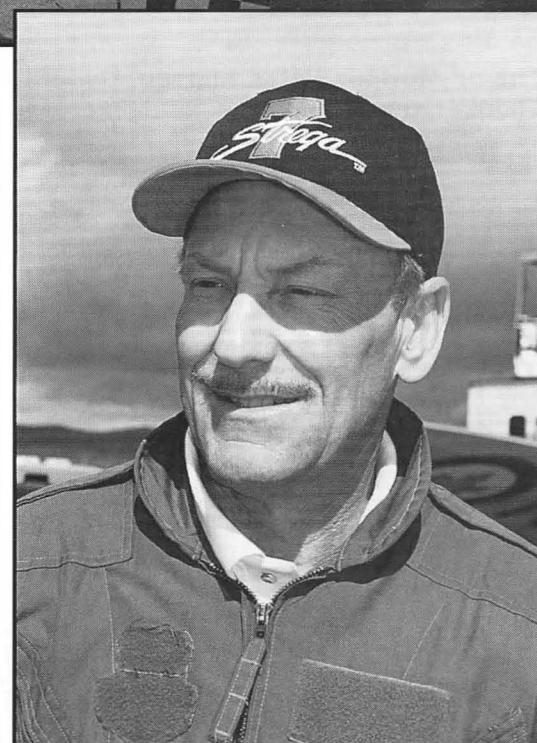
UNLIMITED GOLD 8 LAPS

7 Tiger Destefani, P-51, Strega, 467.948 mph
 David Price, P-51, Dago Red, 460.557 mph
 66 Howard Pardue, Bagdad Fury, 374.385 mph
 19 Brian Sanders, Sea Fury, 367.424 mph
 16 Lloyd Hamilton, Sea Fury, Baby Gorilla, 351.795 mph
 45 Bill Rheinschild, P-51, Risky Business, DNF Lap 4
 77 John Penney, Bearcat, Rare Bear, DNF Lap 2
 55 Bob Hannah, P-51, Voodoo Chile, DNF Lap 1

Action Highlights. David Price got a big jump on the field as the fastest of the fast racers came down the chute to start the final race of Reno '96. Tiger Destefani fell in line behind him but did not close up any as they came wailing through the pace lap and around to start the first lap. **Rare Bear** was a distant third, but John Penney appeared to at least be holding on to his interval behind **Strega**. Price maintained his torrid pace through the first lap and into the start of the second - when suddenly the complexion of the race changed. **Rare Bear** pulled up off the course trailing white smoke, which usually means a burned pis-

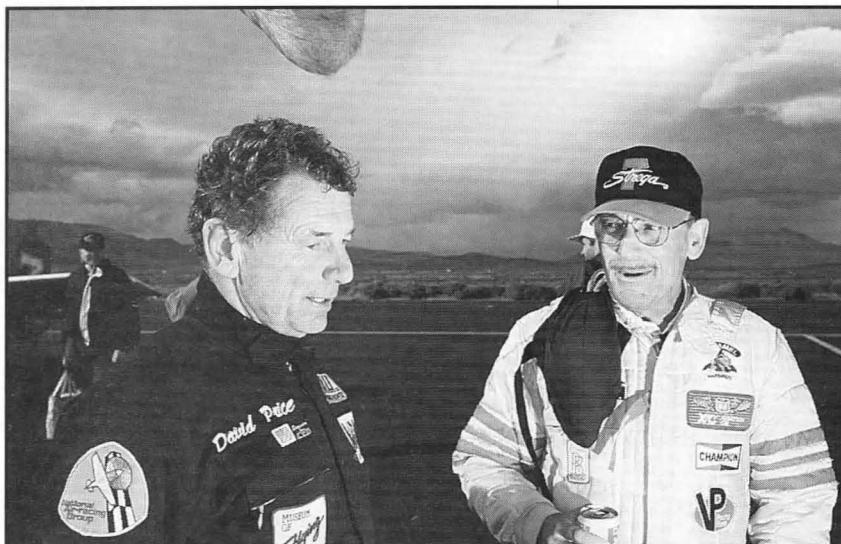
ton, and began a turning descent for landing. Safety pilot Bob Hoover and Steve Hinton, flying Steve's T-33, swooped down from their high perch and escorted him around to a safe landing, but with all the smoke and oil blowing out of the 3350 Wright, Penney simply rolled out to nearly the end of the runway and stopped to await the firetrucks that were rushing to catch up with him. Fortunately, they weren't needed, but a clean-up crew certainly was. The **Bear** was an oil-splattered mess!

Meanwhile, back on the course, David Price was continuing to lead Tiger Destefani, although Tiger was cutting ever so slowly into his interval. It looked like Tiger was getting himself into position to go for the lead . . . and, indeed, he tried to make a pass on the final turn of the seventh lap, but Price managed to hold him off. As they began the final lap, Tiger began to slip back, which was totally out of character unless he was beginning to have a mechanical problem of some sort. Aggression is his middle name on the race course, so something had to be going on for him to suddenly back off and let Price have an uncontested run to the finish line, which is exactly what happened. We had a new name to add to the list of Unlimited Gold winners at Reno, and a return to the victory circle of a race-plane that had not won since its first year of competition in 1982. David Price and **Dago Red** were the winners and their crew rushed out with the champagne as they taxied to the ramp.



Bill "Tiger" Destefani of Bakersfield, CA and his P-51, Strega, winners of the Unlimited Gold championship race. This shot was taken in Tiger's pit shortly before the Gold race. The red awning that normally covers the pit had been removed because high winds had been forecasted.

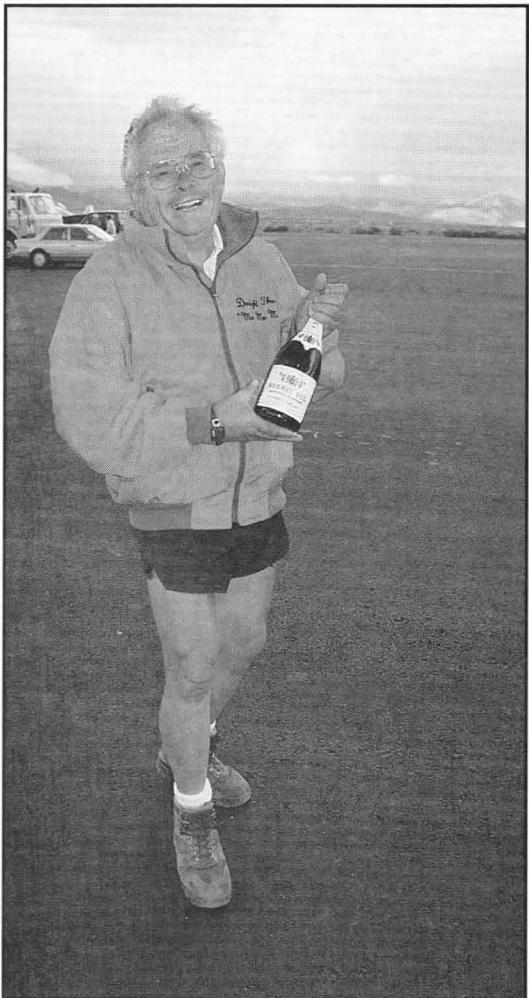
Only five of the eight starters were around at the finish. Bob Hannah had dropped out on the first lap in **Voodoo**



David Price, left, and Tiger Destefani being interviewed by a video crew just after the Gold race. At that point everyone thought Price had won the event, but a pylon cut had been called and he was penalized to second place behind Destefani. The black object draped over Tiger's right shoulder is the portion of his cool suit that fits on his head. Cold water is circulated through the cool suit to make Strega's hot cockpit more bearable during races.

Chile, apparently the victim of whatever problem he had experienced the previous day. Penney had gone out on Lap 2 and Bill Rheinschild had called it quits on Lap 4. So fast was the pace set by Price and Destefani that they lapped Howard Pardue and Brian Sanders, and lapped Lloyd Hamilton

The ol' Merlinmeister, himself, Dwight Thorn - ready to party!



twice in eight laps! It was not a good day for the round engine guys.

Perhaps 30 minutes later, Golda, Ken and Marie Brock and I began heading for our rental car and stopped by the Bi-plane and Formula One hangar/pits to say goodby to friends there. While in Jon Sharp's pit a pylon judge came in and told us that David Price had cut

Pylon 6 on Lap 5 and, as a result, had been penalized to second place. Tiger Destefani was the winner of the Unlimited Gold!

"Are you kidding?" I asked in astonishment.

"I was the one who called the cut," was the authoritative reply.

With that we rushed back to the Unlimited pits to find, indeed, that the penalty had been assessed and that Tiger had been named the winner of his fifth Reno Unlimited Gold championship, all in his clipwing Mustang, **Strega**, of course. While I was out photographing the return of Tiger's crew from the winner's circle, Golda talked to Tiger and he told her that he had seen Price's pylon cut . . . in fact, he believed he had made two cuts . . . and had backed off on the final lap assuming he would be named the winner - as he would be.

One of the happiest guys out on the ramp awaiting the return of **Strega** was Dwight Thorn, who couldn't lose in the Unlimited Gold. He had one of his engines in both **Dago Red** and **Strega**. He has been a member of Destefani's race crew for years, however, and was waiting to celebrate with them with the bottle of bubbly you see in the accompanying picture.

It was a bizarre ending to a rather bizarre year at Reno, what with the crazy weather and all the race cancellations. It had been an exciting week nevertheless and set the stage for a return bout between Price and Destefani in 1997. David flew a tremendous race on both Saturday and Sunday and would have deserved the win had it been in the cards for him. Pylon cuts happen sooner or later to everyone who races aggressively . . . Tiger has made them, Lyle Shelton has made them . . . and it's no discredit to Price and his ability as a race pilot. It's just too bad it happened to him when it counted most. Ol' Tiger had to just lean back and grin, however. He's had his share of bad days at Reno, so he wasn't going to look a gift horse in the mouth when Lady Luck sent one in his direction.

We also stopped by Lyle Shelton's pit and were able to talk with him a bit as the **Rare Bear** was being towed in. It was also his opinion that they had burned a piston, caused, he surmised, by the fact that a new engine they had installed before the races began had been running rich. All the run-ups on the ramp and the numerous test flights had been efforts to lean the engine out, and, apparently, they had gone too far

with the process. Lyle, incidentally, had been scheduled to return to the cockpit this year after a two year hiatus in which he had been battling with the FAA over the status of his flight physical. He took some laps on the race course in the **Bear** but didn't feel sufficiently comfortable in the airplane following such a long layoff and wisely turned the reins back over to John Penney. Lyle was understandably despondent immediately following the Gold race and was concerned over the future prospects of his team. Unlike Price and Destefani, who have the resources to personally fund their racing efforts, Lyle must depend on whatever sponsorship he can put together from year to year. He is actively seeking additional sponsorship for the 1997 racing season and we're certainly hopeful someone will come forth. With **Dago Red** now competitive with the **Rare Bear** and **Strega**, the stage is set for a repeat of the 1991 battle between the **Rare Bear**, **Strega** and **Tsunami**, which remains the fastest air race in history involving piston engine aircraft. Lyle Shelton and his **Rare Bear** won that now legendary race, so a chance to be a part of a repeat performance should interest potential sponsors. How often do any of us have the opportunity to be a part of a history-making event?

END OF AN ERA

1996 was the final year for Thornton Audrain as executive director of the Reno National Air Races. He officially retired at the conclusion of this year's event after 33 years of involvement - seven years as treasurer, 10 as chairman of the board of directors and the last 10 as executive director. A Reno native, Audrain was a B-17 pilot during World War II.

Like Oshkosh and most other big aviation events, the Reno races have always depended on volunteers to fill the countless jobs that are necessary to make them successful. Audrain says they are the folks he will miss most of all.

AIR SHOWS

The races are the main events at Reno, of course, but, as always, there was a spectacular lineup of air show performers to fill the sky with smoke and good ol' airplane noise between heats. The Canadian Snowbirds were back this year with their nine-plane extravaganza, along with veterans Wayne Handley, Lefty Gardner (who blew an engine in his P-38 and did not get a new one installed until Sunday afternoon), Leo Loudenslager and Delmar Benjamin. Newcomers were Rocky Hill in his Extra 300; the Northern Lights, a four-plane aerobatic team that uses Extra 300s; and John Piggott in his Sukhoi Su. 29. 1996 was notable also for the return of Bob Hoover to the airshow portion of the Reno show, performing in his famed Shrike Commander. Sadly, a number of missing man formations had to be flown, to honor the memories of Charlie Hillard, John Crocker, Major Gen. Hal Gray, Jr. and Joe Hartung.

With the promise of several hot new Unlimited racers next year, Reno should be a "must do" on your 1997 calendar.





CLYDE BOURGEOIS' **DAVIS V-3/D-1W**

A couple of years ago, in our Spring 1994 issue, we featured an article on Clyde Bourgeois and his Glasair RG. Clyde is a well-known homebuilder and vintage aircraft restorer who has a shop on the Santa Ynez, CA airport. He does work for others, but has enough projects of his own to keep him as busy as he wants to be, including a Staggerwing he has modified to make it the fastest one around. Another of his personal toys is a rare Davis parasol, originally built in 1929 as a model V-3, but subsequently converted to a D-1W.

For recent subscribers who may not be familiar with the Davis, the design actually sprang from the mind of a man named Doyle . . . W. Harvey Doyle. A 1925 Yale graduate, Doyle sought to get in on the ground floor of the aviation business by becoming a lightplane manufacturer. He, his brother, Wilson, and friends Dwight Huntington and Jan Pavlecka teamed up with financial backer William J. Burke, the president of the Vulcan Last Company of Portsmouth, OH, to incorporate the Vulcan Aircraft Corporation. Doyle and his team designed, built and flight tested a two-

place, tandem, open cockpit parasol . . . which Burke, the man with the money, insisted on naming the Vulcan American Moth.

The new design was an instant hit with the flying public, especially after its successes in the 1928 National Air Races, so it was put into small-scale production at Portsmouth. Only a half dozen or so had been completed, however, when William J. Burke died and the company lost its financial backing. After an unsuccessful attempt to sell stock, Vulcan Aircraft was shut down and later sold to Walter C. Davis of Richmond, IN.

Vulcan Aircraft was reorganized as Davis Aircraft in January of 1929 and Dwight Huntington was retained as chief engineer. (The brothers Doyle moved on to Baltimore where they started a new company and developed the Doyle Oriole, but that's another story for another time.) Huntington made a few modifications to the Vulcan and it was awarded a Group 2 (2-119) approval on September 6, 1929. 23 of the 60 h.p. LeBlond 5D powered Model V-3s were built.

A couple of months after the V-3 was

approved, an improved version, powered by a 65 h.p. LeBlond, was submitted for full type certification as the Model D-1. It was approved (ATC # 256) on November 8, 1929. Over the next few years, until the Great Depression finally closed the company's doors, two more models, the D-1K (90 h.p. Kinner K-5) and the D-1-85 (85 h.p. LeBlond 5DF or 5F), were type certificated and a couple more, the D-1L (90 h.p. Lambert R-266) and the D-1W (110-125 h.p. Warner) received Group 2 approvals. All were essentially the same airframe, but with different engines. According to Joe Juptner's **U. S. Civil Aircraft**, there were nine D-1s built, ten D-1Ks and four D-1-85s. No reliable figures exist for the D-1Ls and D-1Ws because as was the case with the subject of this article, a number of the early LeBlond and Kinner powered models were later retrofitted with Warner engines. A total of 46 Davis airplanes can be accounted for, and John Underwood has documented that the last one, a 125 h.p. Warner powered D-1W, NX-19896, was built in 1937.

In the context of its times, the Davis was considered to be a very sporty, high perfor-

mance airplane. It was kept in the headlines by racers like Art Chester, who was quite successful in ATC events in his NC150Y until stock plane racing was discontinued at the National Air Races in 1932. The Depression finally put an end to Davis aircraft production, but the company would go on to become a very successful manufacturer of lawn mowers. Walter Davis, who had been a pilot in World War I, continued to fly for most of his adult life and died in 1952.

Clyde Bourgeois' Davis was rolled out of the factory door for the first time on June 15, 1929 as a Model V-3, Serial Number 106, N848H. Original equipment included a 60 h.p. LeBlond radial engine (Ser. 5-D-470) and a Paragon S757 wood propeller. The empty weight listed on the factory paperwork was 815 pounds - a number that has bounced all over the place in the nearly 70 years that have since gone by.

848H was signed off by Davis Aircraft plant superintendent Pat Love and was soon (June 20, 1929) sent on its way to its first registered owner, the Dayton Air Institute, Inc. of Dayton, OH. Apparently, this was just a fancy name for a distributorship or dealership because the following day, June 21, the airplane was sold to William Alexander Simms of Dayton. Simms, himself, may have been a dealer because he sold the Davis to Harry H. Brown of Dayton just three months later, on September 16, 1929.

On November 21, 1929 Harry Brown filed an application to add a "C" to the airplane's N number. "C" was for "commercial" and simply signified that the aircraft could be used for hire - rental, flight instruction, charter, etc. Planes could be sold then strictly for personal use, which required only the "N" prefix to the registration number. When an owner applied for an "NC" prefix, the airplane had to be inspected by a Department of Commerce inspector for conformity with its type certificate . . . and that's where 848H and its owner, Harry Brown, got into trouble.

The Dept. of Commerce inspector, R. A. Gilbert of Dayton, came by the Vandalia Airport on January 30, 1930, grabbed the Davis by a wing tip, gave it a shake - and promptly grounded it on the spot! In his ini-

tial report he stated, "License lifted. No rear center section wires installed. Wing not securely fastened to fuselage, causing flutter in the air and will move considerably on the ground if it is shaken. Absolutely un-airworthy. Plane should be grounded until these wires are installed."

Inspector Gilbert's discovery was not the result of damage to Harry Brown's N848H, or some maintenance oversight. This was a new airplane, only seven months old and with just a few hours of use. None of the 23 Davis V-3s built to that point had rear center section brace wires, so Inspector Gilbert was actually grounding them all! A few days later, in early February of 1930, he filed an "Airplane Alteration Recommendation" with the Dept. of Commerce head shed in Washington that is interesting from a number of aspects today.

"This airplane is the parasol type monoplane and wing is located about 24 inches above the fuselage and is held in place by struts only. Has transverse struts on front of center section, but has nothing in the rear, causing wing to flutter in the air, and if the wing tip is moved forward and back on the ground, will move three or four inches, with the fuselage remaining stationary.

"My suggestion for taking care of these planes in service, which number about 23, is for the Davis factory to make up a set of

Clyde Bourgeois



rear center section brace wires, which can be installed in the field, and ship them to each customer.

"I have taken this matter up with the factory and they are of the opinion that this procedure is better than having the customer send in the center section to the factory for this change to be made, and would be much cheaper.

"Outside of this change in bracing, I have heard many complimentary reports about this plane from owners and pilots in regard to stability and flying characteristics."

Written across the bottom of Inspector Gilbert's letter, which is in 848H's paperwork in Oklahoma City today, is the following:

"I concur in this recommendation. R. D. Bedniger"

Shortly afterwards, on Feb. 15, 1930, a letter went out to Walter C. Davis, president of Davis Aircraft, from Kenneth M. Lane, Chief, Engineering Section, Dept. of Commerce. In it, the brace wire deficiency found by Inspector Gilbert was noted, along with Davis Aircraft's agreement to remedy the situation by making up sets of wires and sending them to Davis owners for installation. Chief Engineer Lane requested drawings of the proposed wire installation for approval . . . because, of course, the Davis V-3 was a certified airplane (Group 2).

Davis Aircraft did make up the sets of wires and sent them to Davis owners, but that didn't immediately solve the problem . . . as evidenced by the following letter, dated March 12, 1930, from Inspector R. A. Gilbert to Howard Rough, Assistant Chief, Inspection Service, Aeronautics Branch, Dept. of Commerce, Washington, DC.

"Just returned from the Davis Aircraft Factory at Richmond and wish to state that eight sets of center section brace wires have been sent out to customers owning the D-1 Davis job. (Presumably, he actually meant the V-3, because 848H was a V-3.) The factory has made arrangements to take care of the rest of these customers in the near future by sending these wires to them.

"Last Sunday afternoon I chanced to be driving by the Dayton Airport at Vandalia and thought I would drop in for a look around. I found that fellow Brown, owning the Davis which we took the licence away from, flying and carrying passengers. I hailed him down and told him to put his ship in the hangar and leave it there until such time as the rear center section brace wires were installed and inspected. I asked him if he had the wires and he said yes, but that he had not had time to install them. I told him to do so immediately or else leave the ship on the ground.

"Things are progressing much more smoothly now with the Davis factory than they were at first. One of the reasons being that I can spend more time there. Mr. Nealy, on his last trip to Richmond, told Davis that he should not use any more solder on control cables. That they should be spliced. I have no memorandum covering this and think it would cost much more to splice them than it would to wrap the ends with wire and then solder. Of course, they are trying to keep expenses down as much as possible, and I will say they are doing a



good job of soldering. Please advise me on the above."

The willfulness of "that fellow Brown" is both an amusing and all too familiar reminder that human nature changes very little from generation to generation . . . but, lordy, lordy, how much Inspector Gilbert's reactions to pilot Brown's indiscretions have changed since 1930! Imagine . . . Inspector Gilbert catches Brown red-handed, flying a grounded airplane and carrying passengers to boot, yet his only response is to sternly tell him to stop what he is doing and put his Davis back in its hangar and leave it there until he has installed the brace wires. He files no violation, he does not lift Brown's pilot license, he does not subject him to a \$50,000 fine. He doesn't even claim Brown has a cognitive defect! Not only did he deal humanely with Brown, he even expresses concern for and sympathy with the Davis factory's efforts to hold down costs - remember, the Great Depression had just begun - and sides with them on the question of wrapping and soldering cable ends versus splicing them. By the standards the FAA follows today in its dealings with pilots and aircraft factories, the man should be considered for sainthood!

Remarkably, Inspector Gilbert's handling of the entire situation seems to have worked. The next inspection report on 848H shows that the brace wires had been installed. Further, his recommended fix seems to have worked because there is no historical evidence today to indicate that Davis aircraft had any subsequent problems with wing flutter. Perhaps pilot/owner Brown should have received harsher treatment - he certainly should not have been exposing innocent passengers to potential harm - but the fact remains that Inspector Gilbert was able to bring about the changes he sought without having to resort to draconian measures. Would it work today? Would pilots and aircraft owners respond appropriately to mere requests for cooperation, or have we been brutalized for so long by extreme government enforcement measures that we would simply ignore something so innocuous as a "stop doing that and don't do it again?"

The bottom line, I suppose, for all of us, pilots and the FAA alike, is simply, "Where did we go wrong?"

"That fellow Brown" flew 848H about 25 hours per year during his nearly two years of ownership, and finally sold it to Carl H. Hauck of Cleveland in March of 1931. Hauck flew it about twice as much, closely approximating the 50 hour per year average of private owners today. The airplane was based at the Lost Nation Airport in Willoughby, OH during Hauck's ownership, and when he sold it on June 29, 1934, it was to a local partnership consisting of David E. Lawson and Elmer Kurrel, who continued to keep the plane at Lost Nation.

The next (sixth) owner was Robert Sours

of South Akron, OH, who took possession on July 20, 1935. It was during his ownership that the first airframe refurbishment was necessary. The center section and horizontal stabilizer were recovered, with the sign-off dated June 17, 1936. The Davis had been flown a total of 443 hours at that point.

848H would move west on November 13, 1936, after being purchased by the Harold Alford Flying Service at the Stinson Airport in LaGrange, IL. Alford, in turn, sold the airplane to Roy W. Adkens of Chicago on March 6, 1937, who based it at the Harlem Airport. A Maintenance and Repair form dated June 8, 1937 listed the total airframe time as 541.30 hours. Although there is only a passing reference in a 1944 paperwork entry, a major accident apparently occurred during Roy Adkens ownership of the Davis. The entry reads, "Fuselage, landing gear, tail surfaces and wings recovered and repaired after accident in June 1937."

Adkens owned 848H until November 7, 1940 when the title was transferred first to Virgil Holt and then to Artie G. Collins of Chicago on the same day. Some damage apparently occurred the following year, because the sign-off for welding a new tube in the fuselage occurred on November 12, 1941.

Ira Rusk of Chicago was the eleventh owner of 848H, and courtesy of the government's wartime demands for increased personal information on aircraft paperwork, we know he was a white male who was five feet ten inches tall, weighed 190 pounds, had dark brown hair, blue eyes and was born in Sault St. Marie, MI on December 20, 1906, which made him 37 years old at the time of the sale on July 27, 1944. He paid \$450 (about \$5,000 today) for the Davis, but would spend considerably more over the following five years. In January of 1945 the left landing gear leg was repaired by "inserting a piece of 4130 tubing 10 inches long inside and welding at a 30° angle." This work was likely the result of at least a groundloop, but there is no accident report in the airplane's record for the period. On July 10, 1945 the paperwork was signed off for a major rebuild: "Fuselage, elevators and stabilizer recovered with Grade A. Both

wings uncovered back to the fifth rib from spar butts. A scratch was found on each side of spars between fourth and fifth ribs where metal rib scratched spar when installed. 5/16" plywood, 14" long and 5 1/4" wide glued over scratch."

Dan Spach of Cicero, IL bought the Davis on February 10, 1949, and although again there is no accident report in the paperwork that exists today, it would appear that Spach bought the airplane as a wreck and proceeded to literally remanufacture the airframe. A Maintenance and Repair form dated Sep. 15, 1949 shows a new landing gear and tail surfaces had been built, using .049 4130 instead of the original .035 1025 steel tubing. Various fuselage repairs were also made, plus the retrofitting of "Piper Cub Cruiser" wheels and brakes.

On October 27, 1949 a second form noted that the wings had been rebuilt, with new spars, leading edges, wing tip bows and new ball bearing aileron hinges. Spach also installed a 165 Warner and an Aeromatic prop, which changed the aircraft's model designation from a V-3 to a D-1W. A temporary Experimental license was issued on February 24, 1950 to fly off the test time imposed by the engine change, but a new one had to be issued on June 7, 1950 when Spach yanked out the 165 Warner and installed a 185 Warner R-550-1. There is no record in the existing paperwork to reveal the use Spach made of the airplane with the big engine, but, hopefully, some of you Chicago area readers will be able to provide some clues.

Dan Spach sold 848H to Delmer Curtiss of Aerial Photo Service of Tulsa, OK on March 21, 1952. The following year, on June 16, 1953, the 185 Warner was removed and a 165 was put back in. The airplane had apparently been in an Experimental category while the 185 Warner was installed, but it reverted back to Standard Category when a 165 was reinstalled. Interestingly, the person who signed off the engine change was Charlie Schuck. Charlie would go on to a long and distinguished career with the FAA, most of which was served in Washington. In his last years with the agency, he became the EAA/FAA liaison, and upon his retirement from the FAA, he became EAA's Washington Representative,



along with David Scott. Charlie is EAA's Senior Washington Representative today (David Scott died a few years ago), having just been joined by Rick Weiss this fall. In this position, Charlie has been a force of incalculable good for EAA members and the sport aviation community in general, using calm reason and his vast experience to solve little problems before they have had the opportunity to become large ones.

The Davis had been flown 630 hours when Charlie Schuck signed off the engine switch and reversion to Standard Category. On April 26, 1954 the airplane was sold to Leslie Rudie of Tulsa, and for the next five years it enjoyed one of the more peaceful interludes of its existence - at least judging by its paperwork. There are no records of accidents or repairs during this period.

On June 27, 1959, the Davis was sold to Encel Kleier of Inola, OK. That winter he had Dave Warren do a major rebuild that included some tube replacement in the fuselage, new front and rear spars for the right wing, a new front spar for the left one and new metal leading edges. The entire airframe was covered with Grade A and finished in nitrate dope and two coats of white enamel. At the same time, Kleier had John Armstrong remove the 165 Warner and install a 145 Warner and Sensenich wood propeller. A&P James Frost built a new engine mount for the 145 Warner.

Encel Kleier sold the Davis to Fred Troy of Tulsa on September 30, 1961, but bought it back again on April 19, 1965. Dave Warren was employed once more, this time to recover the fuselage.

The American Sport Aviation Society, Inc. of Lakewood, CA became the 18th owner of 848H on December 20, 1968 and nearly five years later, on July 21, 1973,

Clyde and Margaret Bourgeois became the 19th and, to date, last owners of the airplane.

Clyde has a far more personal recollection of the purchase than can be derived from the FAA records.

"I bought it from Clayton Graves (a principal in the American Sport Aviation Society) at the Santa Paula, CA Airport. He had another one and had bought this one with a partner. I just happened to walk by the day he and Don Dickerson were putting it together. I had admired the Davis since I was a kid and they had this one for sale - so I just bought it. It hadn't been flown for many years, but we finally got it running and ready for me to ferry to Santa Barbara, where I lived at the time.

"The throttle was sticking, but I decided that if I could get it wide open, I'd give it a try. We finally got it open, so I took off and climbed up over Santa Paula to 6,000 or 7,000 feet. Everything seemed to be working, so I flew it to Santa Barbara. The throttle was working by the time I arrived and I pulled it back to idle as I was turning base. I opened it up once on the approach and the engine just belched oil all over the place. There was so much smoke coming out of the engine that the fire trucks were sent out to follow me on roll out!"

Clyde found the airplane to be in pretty sad shape, so he ended up doing a complete restoration, including a major overhaul on the 145 Warner. He had Ole Fahlin carve a prop that allows the engine to turn 2,200 rpm on static runup. When he bought the airplane, it had PT-19 wheels (with no paperwork showing when they were installed), so Clyde built his own to make the airplane look more original. When built by the factory, 848H had a sleek, pointed nose with

just the cylinders of the LeBlond engine exposed. When the Warner was installed, a ring cowl was fitted and was still on the airplane when Clyde bought it. He wanted to go back to the original nose configuration, so he discarded the ring cowl and built his own sheet metal to fit around the Warner cylinders and match up with a big spinner.

The spinner posed quite a problem, initially. Clyde looked and looked for one of the desired shape, but couldn't find one among existing aircraft spinners. One day, however, he was in a hardware store and spotted some fiberglass flower pots that were on sale. They were the type that sits in a wire stand, so their bases were pointed rather than flat - just like a prop spinner. The more he looked at them, the more he realized they were almost precisely the size and shape he was looking for - and to make a long story shorter, his 95 cent purchase became the basis for the spinner that is on the Davis today.

Clyde says ol' 848H will outclimb a comparably powered Super Cub, but is slower in cruise and is not as suitable for short field operations. It flies very nicely, he thinks, but runs out of elevator and pitches down if allowed to get too slow. He thinks this tendency could be handled with a more effective elevator trim system, but prefers to simply land fast enough to avoid the problem altogether.

With all his own aircraft and others that are available to him, Clyde does not fly his Davis very much, but he still likes it. It's a reminder of his youthful enthusiasm for airplanes and provides him with a moment of pleasure every time he looks at it. That's reason enough, he thinks, to keep it around - and, of course, he can still fly it whenever he gets the notion. 





RICK ALVAREZ' EVANS VP-1

We hear it all the time.

"What aviation needs is a simple, inexpensive sportplane that can be flown for just a few bucks per hour."

You may be surprised to learn that this sentiment is nothing new. I began hanging around airports in the mid-1940s, and I've heard it throughout my life. About the closest we ever came to actually having a lot of simple, inexpensive airplanes to fly was in the early 1950s. During the Korean War years, the price of Cubs, Champs and Taylorcraft dropped so low that you could walk onto almost any small town airport in the country, wave three or four hundred dollars in cash around and get your choice of almost all the 65 h.p. lightplanes on the field. The reason was that so many of the more adventurous young men were off fighting a war, and the older, more prosperous pilots preferred Piper's best-selling new Tri Pacer. That little window of opportunity didn't last very long, however, and by the end of the decade, Cub prices had already begun an up hill march that continues to this day.

By the late 1960s the cheap airplane had pretty well vanished for what appears today

to be forever, which, of course, only served to encourage those who felt challenged to find a way to bring them back. One such bucker of tides was W. S. "Bud" Evans, then a design specialist for Convair in San Diego.

Feeling the need for an absorbing, worthwhile project, Bud decided the everyman's fun airplane would keep him away from evening naps in front of the TV and, maybe, might be a significant contribution to aviation. Consequently, he spent two years of evenings and weekends at his drawing board and another in his shop designing and building the prototype of what would originally be called the Volksplane. Later, after Volkswagen complained, the name was changed to VP-1.

What Evans had wrought was a little single place, open cockpit, strut-braced, low wing airplane powered by a 40 h.p. Volkswagen auto engine - hence, of course, its name. Intended to be dirt simple, the fuselage was simply a long, skinny plywood box, with a firewall up front, bulkheads at the front and rear of the cockpit that doubled as the load carrying members for the

Above. Rick Alvarez and his VP-1 at the famed Flabob Airport near Riverside, CA.

wing and strut fittings, and a close-out bulkhead at the aft end. 3/4 inch longerons and intercostals stabilized the corners of the box and provided something to glue the 1/8 inch plywood sides and 1/16 inch ply top and bottom skins to. The two-piece wings consisted of two 3/4 inch spruce spars and 1/4 inch plywood ribs, trussed up securely with 3/32 inch drag cables. Streamline struts mounted on the top sides of the wings braced them to the fuselage. The wings, ailerons and tail surfaces were fabric covered.

The empennage was somewhat unique at the time in that both the vertical and horizontal surfaces were of the "all-flying" type. Both the rudder and the stabilator pivoted around single spars - there was no fixed vertical fin or horizontal stabilizer. Though simple structurally, the tail surfaces were quite sophisticated aerodynamically, with both balance weights and an anti-servo tab necessary to make the stabilator work



properly and safely. The ailerons were also balanced to thwart the onset of flutter.

The landing gear was simply a slab of 3/8 inch thick 24ST3 aluminum, bent into the desired shape and fastened to the bottom of the fuselage with four bolts. Surprisingly, the gear legs themselves did not provide shock absorption - that was handled entirely by the 6:00 x 6 aircraft tires inflated to just 12 pounds. Diagonal cables extending between the gear legs kept them from spreading apart and getting the prop into the ground.

The engine was a stock, late 1960s VW flat four fitted with a prop hub and a Vertex mag. It derived sustenance from an eight gallon fiberglass fuel tank mounted just ahead of the instrument panel and roll bar.

There was little more to the airplane. Ini-

tially it was without brakes and made do with a leaf spring tailskid, but that did not prove practical in the modern airport environment . . . or popular with pilots who wanted to be able to taxi around on paved ramps and launch themselves without the aid of wing walkers. Brakes, tailwheels and even starters were inevitable once EAAers began building them.

The prototype VP-1, N6414, had an empty weight of 440 pounds and a gross of 650. The wing span was 24 ft. and the length was 18 ft. The wing area was 100 sq. ft. and the wing loading was 6.5 pounds per square foot. The power loading was 16.25 pounds per horsepower. With the 40 h.p. VW and a 54" x 24" Hegy prop, the rate of climb averaged about 400 fpm. The prototype stalled at 46 mph and the never

exceed speed was 120 mph.

Though very basic in configuration and construction, the Volksplane/VP-1 was anything but an eyeball engineered airplane. As noted earlier, it was designed by experienced aircraft design engineer. A stress analysis of the entire structure was done, static tests were made on the horizontal tail and critical aft wing spar, and flutter analysis of the stabilator was carried out. It was test flown by a professional engineering test pilot who produced a report comparable to what any factory would require in preparation for the certification process.

The Volksplane/VP-1 was formally introduced to the EAA world in the May 1969 issue of **Sport Aviation**, with a beautiful aerial shot on the cover. A sensation from the start, hundreds were soon under construction in garages and basements all over the world. Once they began flying, they proved to be tractable little beasts that low time pilots could safely climb into and go flying - important, of course, since it was a single place airplane with no comparable machine in which to get a checkout. (Bud Evans would later design the two-place VP-2, which was a solution to that problem.)

One of the most convincing testimonials I've ever seen for any airplane involved a VP-1. Vascoe Whatley of Allendale, SC, one of the first to complete an example of Bud Evans' design, showed up at a fly-in at the Wings and Wheels Museum in Santee, SC in the spring of 1971 and invited any taildragger pilot present who wanted to fly his VP-1 to get in line! I no longer recall how many pilots took him up on his offer, but the little bird was flown all afternoon - and no one seemed to have a problem with it.

The little VP-1 did precisely what Bud Evans intended it to do. It was relatively easy and inexpensive to build, own and op-



erate, it was safe and easy to fly, and it was fun. It was intended to be flown purely for recreation in and around one's local airport, with, perhaps, an occasional foray to an area fly-in. Those who used the airplane as it was intended enjoyed it very much. Those who tried to make it something it wasn't by loading it down with cockpit enclosures, bubble canopies, gyro panels, etc., were usually disappointed.

Like most homebuilt designs, the VP-1 had its period of great popularity, then ultimately moved aside as new designs came along. It has never completely fallen from favor, however, and a few are still being built today. It costs a lot more to put one together today (who would have believed wood would ever get as high as it is today), but, otherwise, little has changed for the Volksplane/VP-1. Its mission is the very same today as it was in the late 1960s, and it performs it just as well today as it did nearly three decades ago. That's what the subject of the rest of this article realized, and it's why Rick Alvarez is having so much fun with his VP-1.

RICK ALVAREZ' VP-1

Rick Alvarez grew up in the Los Angeles area and was infected with the airplane disease during his childhood. He learned to fly in a Cub and a Cherokee and soloed at 16 at what is now the Rialto, CA Airport. He would go on to serve as a military air controller and would earn his A&P license, but would not choose either activity as his profession. Instead, he went to work in the electronics industry and is employed by a firm that builds audio/visual entertainment systems for airliners. He's never been able to get flying out of his system, however.

Rick had always harbored a desire to build his own airplane, but had been more or less content to rent as long as he could get some taildragger time now and then. In recent years that has become an increasingly difficult task, a fact that finally pushed him over the edge and into homebuilding. A close observer of the homebuilt scene, he admires a number of the fast designs, but for reasons even he is not sure of, the VP-1 has always appealed to him. Thus, when he had the opportunity to buy a project that included nearly all the materials, he finally took the plunge.

The project took about three years - slow the first year and all-out effort for the last two. Bud Evans' plans were closely followed, with the few deviations being largely cosmetic in nature. Rick built up his own 1835 cc VW, using a prop hub and carburetor from Great Plains. Because of his concern with the possibility of vapor lock with the low pressure head in his gravity flow fuel system (the tank is mounted just a little higher than the engine), Rick decided from the beginning to burn avgas rather than auto fuel. That allowed him to up the compression ratio from seven or so to one to just over eight to one, which probably increased the horsepower a little. He chose to use a ground adjustable IvoProp, reasoning that if he bought a fixed pitch propeller, missed on the pitch and had to buy a second one, he'd have spent the equivalent of the price of the IvoProp.

The decision has paid off a couple of times since the airplane was completed last year because he's had to readjust the pitch on two occasions after making changes to the engine.

During construction, Rick was told by several VP builders that airplane had a tendency to be tail heavy, so when he installed his engine, which bolts directly to the firewall through rubber bushings, he moved it out just a little further forward than called out in the plans. Perhaps just a kosh too far, Rick has subsequently surmised.

The stock wire braced VP main gear was employed, but the exact pedigree of his wheels and expander tube brakes has not yet been determined. Two sets of them came with the project, having been purchased by the original builder. The brakes have proven to be rather marginal, Rick says, but adequate enough to make him think twice before spending a wad of money on new ones. As indicated earlier, tail-wheels have long since been standard on VPs, and Rick used one on his. He also made up and installed toe brake pedals, which was one of his plans deviations.

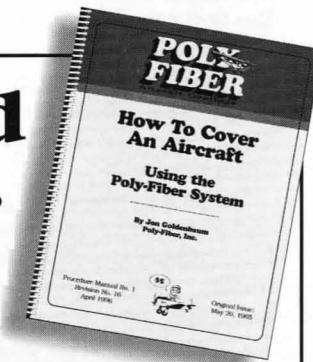
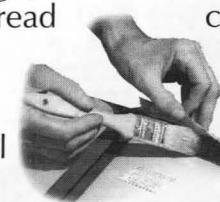
He bent up his own Plexiglas™ windshield, but had to resort to the use of a welding torch to get enough heat to make the material pliable. It's thick stuff, he says. A sand buggy seat and harness were used, and the turtledeck was made removable so as to also serve as a small baggage compartment.

When completed, the wings and tail surfaces were covered with Stits (now Poly-Fiber) - as if he had any choice, Rick jokes. He belongs to EAA Chapter 1, which was founded by Ray Stits, developer of the popular covering process and still an active member. And, further, Chapter 1's current president is Jan Johnson, a Poly-Fiber dealer and frequent instructor at covering seminars. It was Rick's

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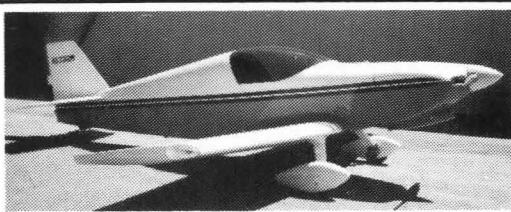
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first complete covering job and proved to be both easy and enjoyable, he says. He finished the airplane in Insignia White and Lemon Yellow, using Aerothane on the cowling, fuel tank (which doubles as the forward turtledeck) and the aft turtledeck, with Poly-Tone for the remainder of the airframe. Rick insists that he did not strive to produce a showplane, but Ken Brock and I were certainly impressed with his workmanship.

When completed, N104VP had an empty weight of 530 pounds. That's considerably heavier than Bud Evans' late 1960s prototype, but it, too, gained weight when it was fitted with brakes and a tail-wheel. It's likely that none of the customer-built VP-1s were ever as light as the first one because, like Rick's, they have generally had larger fuel tanks (his holds 10.5 gallons), electrical systems and other amenities. Most would also have larger engines, so at least rates of climb would not suffer much.

Like so many builders, Rick virtually ceased flying during the three years it took him to build his VP-1. He had no problems making the first and subsequent test flights, however. The airplane climbs out at about 55 mph indicated and averages around 400 to 500 fpm. Rick says he cruises at 75 because at any faster speed the noise gets objectional. Echoing the original thoughts of designer Bud Evans, he doesn't consider speed to be the point of the VP-1. He enjoys the simple pleasures of aircraft handling and the spectacular view from its very open cockpit.

For whatever reason, possibly a pitot position error, Rick's VP-1 stalls at a lower indicated speed than Bud Evans' 1969 prototype. It poops out at about 40 mph power off and at 35 power on. With power, he gets a bit of a wing drop, but the nose drops straight through power off. In either case, recovery comes quickly with the release of back pressure on the stick.

While landings are easily accomplished, they are a little different, Rick says. Like all low wing airplanes with top side strut bracing, the rate of sink increases rapidly as one slows for landing. Apparently, the lift is disturbed under the struts at higher angles of attack, which has the effect of reducing



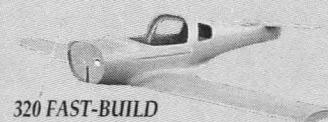
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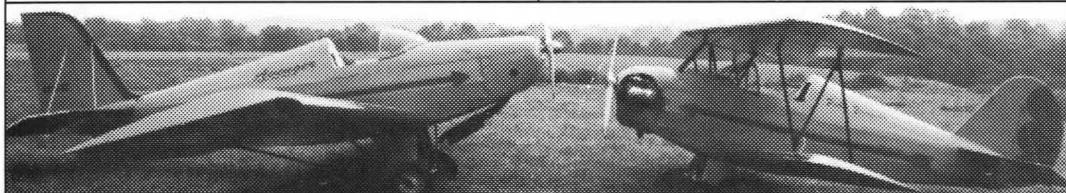
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wing area and thus the lift. In practice it's no big concern, however; Rick simply uses a touch of power down to the flare. Probably because he moved his engine forward slightly, plus the fact that the main gear is quite short, he cannot get the tail low enough to make a full-stall landing. He compensates by landing just a little faster, but that has the advantage of providing him with more than enough control when he encounters a gust while in the flare.

Rick is quite pleased with his VP-1. He likes the way it handles and he particularly likes the gas bills that come with burning only two and a half to three gallons per hour - even at 100LL prices. He is also

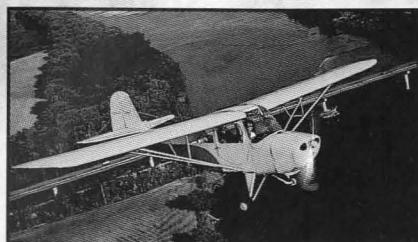
pleased with the knowledge that he has a total of just \$8,000 in the airplane.

"You can't have much more fun for the money."

During construction of the airplane, Rick's 10 year old daughter began helping him and enjoyed the work so much that now he feels guilty having to leave her behind when he goes flying. He's currently looking at two-place plans, or, perhaps, a four-place factory-built to restore.

In any event, Rick says he'd like to keep the VP-1 for his Sunday flying . . . "and just throttle way back, take it easy and have a lot of fun."





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